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ABSTRACT

This document contains 143 papers and innovative sessions, three poster sessions presented at a conference on human resource development (HRD). A program overview, author index, and a keyword index are also included. The papers are grouped by the conference's 42 symposia, which were devoted to the following topics: women's HRD-related issues; workforce diversity; organizational learning and development; workplace learning; job satisfaction; HRD competencies; gender issues in the workplace; global team development; technological change and HRD; self-directed learning; leadership development; management education; knowledge management; workers' basic competencies; transfer of learning; HRD training techniques and strategies; ethics and integrity in HRD; HRD in Asia; career development issues; HRD theory; human capital; organizational change; human resource management issues; HRD graduate education; HRD research issues; adult learning; measurement and research tools; assessment and evaluation modeling; issues in training; workplace issues in human resources; executive development; work ethic and values; recruitment issues in HRD; conflict management; HRD in Africa; HRD in Europe; HRD and ethnic minorities; certification issues; multiple intelligences; productivity issues in HRD; and historical perspectives on HRD. Most of the papers include substantial bibliographies. (AJ)

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AHRD 2002 CONFERENCE

Honolulu, Hawaii
February 27 – March 3, 2002

T. Marshall Egan
Susan A. Lynham
Editors

Vinod Inbakumar
Managing Editor

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T. MARSHALL EGAN
SUSAN A. LYNHAM
TEXAS A & M UNIVERSITY

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Academy of Human Resource Development
College of Technology
Bowling Green State University
Bowling Green, OH 43403

Telephone:	(419) 372-9155
Fax:	(419) 372-8385
E-Mail Address:	office@ahrd.org
Website:	www.ahrd.org

Editors:	T. Marshall Egan
	Susan A. Lynham
Managing Editor:	Vinod Inbakumar

See the 2002 AHRD Conference Program for a full list of conference volunteers and contributors.

AHRD 2002

Academy of Human Resource Development

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AHRD 2002 CONFERENCE

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Academy of Human Resource Development
College of Technology
Bowling Green State University
Bowling Green, OH 43403

E-Mail Address: office@ahrd.org
Website: http://www.ahrd.org
Telephone: (419) 372-9155
Fax: (419) 372-8385

What's in a Name? Human Resource Development and its Core

Wendy E.A. Ruona
University of Georgia

Changing the name of HRD is not the wisest course of action given HRD's current state. Our efforts would be better invested in deeply investigating and drawing out the core commonalities spanning multiple HRD professionals, contexts, and emerging paradigms. A name that would better reflect the theory and practice of the profession requires considerable, multi-pronged, and on-going study of the field's history, philosophical paradigms, current roles, and future trends.

Keywords: Defining HRD, Philosophy; Professionalization

It is not uncommon to hear stakeholders, clients, colleagues, and students questioning the efficacy of the term "Human Resource Development", especially as they begin to understand more about the value that HRD can add. This issue flared during the Future Search Conference (Weisbord & Janoff, 1999) sponsored by ASTD and AHRD (Academy of Human Resource Development) during Summer, 2001 and was identified as a major barrier in thinking about and planning for the future. What was it, *really*, that we were searching for the future of? Was it HRD? Was it workplace learning and performance? Was it not limited to the workplace or worker? Was it more than learning? Was it really about performance? What about organizational development and the role of OD in HRD? The name was thought to be quite limiting and ambiguous for this expansive yet coherent profession that is capable of doing so much more than what seems implied by the name.

I can hardly disagree. I am a faculty member in a program that is titled "Human Resources & Organizational Development" because we felt the need to better describe our commitment to preparing professionals for a role that is much broader and deeper than that of a traditional trainer. The efficacy of the term HRD does indeed need to be reflected upon. That said, as a researcher in HRD, it is clear to me that changing the name of the profession at this time will do little to answer the questions that distress us. We have no clear alternative name to consider, the current name is historically and socially anchored (and there are immense challenges in doing the same for a new name), and, most importantly, changing the name will likely only propel us into debates that are exactly like those we are having today—wondering and deliberating about what is and is not core to the field and whether this new name reflects it. These themes are all discussed below. This paper then argues that the efforts of HRD professionals would be better invested in taking a firm stand towards professionalization and in increasingly understanding and bounding HRD as a profession. Rather than arguing for the efficacy of the term, this is an argument against renaming the field without a compelling and well-legitimized alternative name that inspires coordinated action.

A Rose By Any Other Name....

Juliet asked Romeo, "What's in a name?" and went on to express her now infamous reasoning, "that which we call a rose by any word would still smell as sweet" (Shakespeare, 1595). This quote adequately represents the crux of the argument presented below. In this case, a renamed HRD would still be the current HRD we live in today. It would still be an ambiguous, ill-defined field struggling to establish its identity and stalled in issues about what is central to the profession, how the profession adds value to the world, and what HRD professionals do now and need to do in the future.

What to Change It To?

The immediate question that comes to mind when contemplating a name change is quite simply, "to what?" There is widespread agreement in the HRD literature that there is little consensus on the purpose, location, alternative philosophies, and theoretical foundations of the field (Lee, 2001; Garavan, Gunnigle & Morley, 2000; Hatcher, 2000; McGoldrick, Stewart & Watson, 2001; McLean & McLean, 2001; Ruona, 2000b; Weinberger, 1998). Indeed this lack of consensus inspired one of AHRD's journals, *Human Resource Development International*, to devote a whole issue (4:3) to the debate around defining and definitions in HRD.

There have been over 20 definitions of HRD forwarded since 1970 when Nadler conceptualized of a field called Human Resource Development. Nadler himself went on to revise his definition of HRD throughout his 30+ years of

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advocating for the emerging profession. These definitions vary in their focus, prescriptions, philosophies of development, and beneficiaries (Ruona & Swanson, 1998). Recently, a vocal perspective has emerged that emphasizes the breadth, diversity (McLean & McLean, 2001), multidisciplinary (McGoldrick et al, 2001), and indefinability (Lee, 2001; Mankin, 2001) of the field. These authors point to the dynamic, continuously emerging nature of work required of those we call HRD professionals and advocate a fluid, unfolding meaning of the current name.

What has clearly not emerged is an active and vocal community that is focusing on what these 20+ definitions or the rapidly changing work of HRD professionals have *in common* over time and context. Ruona & Swanson's (1998) analysis of definitions identified four major areas of convergence within these many definitions as (1) emphasizing development, (2) advocating multiple interventions (i.e. not just training), (3) focus on individual, and (4) link to work and work-related development. Weinberger (1998) identified 5 dominant theoretical domains that these definitions share: learning, performance improvement, systems theory, economics, and psychology. Grieves & Redman (1999) suggest that four central characteristics of HRD are: (1) the use of HRD as a strategic intervention, (2) emphasizing the active role of line managers, (3) active, proactive, and continual people development/learning, and (4) work-based learning. And, more recently, a study of OD practice found that the most frequently listed activities of 250 OD consultants were eight project focus areas that are often described in the literature (Frey, Schroder, Wheeler & Johnson, 1999).

Even with this handful of pieces and many years of competency and activity surveys such as those produced by ASTD, the HRD scholarly literature has largely focused on the differences and variances in this emerging field. This focus on fostering the pluralism downplays deep investigation of the stable value that HRD professionals contribute and the commonalties that cut across context, organization, and country. As a result, there is no groundswell converging on a shared meaning of HRD, even at its most rudimentary level. And there is certainly no vocal majority that is able to point to the current name and legitimately critique it on empirical, theoretical, or philosophical grounds. Perhaps this is why we cannot find one piece of literature in our journals that explicitly critiques the current title of HRD. In the same vein, there have been no assertions that this term unduly limits the theory and practice of what we understand HRD to be.

Naming and Classifying: A Social "Taxonomical" View

We can also take a relevant cue on this issue from the science of classification called *Taxonomy*. Taxonomy utilizes tools and methods for describing and classifying the diversity of organisms that exist, the most-well known scheme originating from Carl Linnaeus' classification of plants and animals in the late 1700's (Cummins, 2002). In the Linnaean system of classification, when a new organism is discovered the first thing to be done is to choose a name. The name must be published and include a description of the new species. It must then be offered up to the scientific community to be further studied and described. This is precisely what has happened in HRD during the past 30+ years. Nadler coined the term "HRD" and he and others published it widely as they attempted to describe it. Descriptions of it were refined over time, and now we find ourselves entertaining the notion that the given name does not adequately reflect what HRD really is.

Here the *Law of Priority* from the science of classification (Cummins, 2002) has much relevance. It states that the name proposed first has precedence over all subsequently proposed names. The name of a species would only change if those wanting to change it offered a *convincing argument* for why the name no longer accurately described or categorized the species.

In biology this argument would be built on characteristics that organisms do or do not share and on evolutionary history. In the social world that we are discussing, our charge would be much the same. In the social world one of the truths of practical life is that people naturally classify and organize things to come to grips with and simplify the external world. While the reality of human thought is more complex, it is verifiable that when people are faced with new data they will automatically attempt to compare it to what else they know and cluster that information into similar categories. So, how has HRD come to be known in this socially constructed world during the past 30 years?

The evolutionary history of HRD is complex. In the United States, HRD is often viewed in relation to (and as a sub-set or "child") of Adult Education and of Vocational Education, two distinctive professions themselves. Moreover, as the field of HRD has evolved it has been inextricably linked to the diverse (and equally as abstract) field of HR (see Walton, 1999 for an excellent overview on this topic). McLagan's (1989) study defined the field in relation to the larger arena of which it was a part and, in so doing, produced the HR Wheel, which identified nine HR practice areas. McGoldrick et al (2001) state "HRD is still in the intellectual shadows of HRM, particularly with respect to HRD research in the UK" (pg. 350). Most importantly, quite often the role of HRD is *operationalized* in

organizations as a sub-set of a large function called HR and the practical work of HRD professionals greatly overlaps with much of current day HR/HRM practices.

Here in this socially constructed world, it must be accepted that HRD has been understood and institutionalized very much in relation to other disciplines, particularly HR/HRM. Changing the name of the profession will require a lengthy process of reconstructing peoples' understanding of what the field is and how it fits in the world. That demands a strong argument on our part to be able to legitimize the switch. This argument must be based on demonstration of how we are the same and different from each of our relatives. And, most importantly, this argument must be clear and compelling enough to foster a social movement that spreads this new reasoning outward.

Making Meaning: Pull or Push? It's Still Uphill

When this issue originally arose at the 2001 Future Search Conference sponsored by ASTD, the proposition was that the name was a constraint and that changing it would serve as a much needed future "pull"—that is, help to pull this ill-defined field towards a new and more shared idea of the future. Immediately I wondered whether changing the name of HRD would really help to address the true challenges facing the profession right now. The answer to that question was unclear and, in fact, the proposition seemed quite dangerous.

Changing the name will elicit similar attention that Walton (1999) describes when Personnel changed its name to Human Resources in the 1970's-1980's. It involved, he states, "whether HRM is just a new term or whether it embodies something substantially different" (Walton, 1999, pg. 123). Writers of that time critiqued the name change and wondered whether it was just the same old wine in a new bottle. Which would HRD's name change represent? Old wine repackaged to look new? Or *new* wine? And, if so, will it be better? It is clear that we have yet to gain any common and widespread understanding of the old HRD wine. To be sure there is even less understanding about any new wine. The field of HRD suffers from a lack of identity and consensus on its key tenants, and changing its name will not remedy this state.

If the name of HRD was to be changed today, without the compelling and well-legitimated alternative as described above, it would actually result in little progress for the profession. Random and reactive assignment of a new term will only confuse the present condition and reflect poorly on a field of theory and practice that has worked for the better part of the last century to gain a foothold. And for what? A new name would likely only propel us into debates that are exactly like those we're having today—wondering and debating about what is and is not core to the field and whether this new name reflects it.

Most importantly, the losses HRD professionals would feel as a result of that decision could be devastating. HRD's founders and professionals have worked tirelessly for credibility, resources, and identity and have been increasingly successful in gaining a foothold in organizations, universities, among other professions, etc... There are now millions of people around the world who earn their livelihood through practicing HRD and millions more who accept the validity of services provided under the auspices of the concept called HRD. The Academy of Human Resource Development was established in 1993 and is thriving, the profession now has four scholarly journals (all with the terms human resource development entwined in their titles), and within the last three years there have been at least four foundational books published that seek to situate HRD and capture specialized knowledge in the field (Gilley & Maycuhich, 1999; McGoldrick, Stewart & Watson, 2002; Swanson & Holton, 2001; Walton, 1999). Changing the name now would ask people of the world to re-situate all of this in their own schemas. We would also surely be questioned as "just another fad" and mistrust would undoubtedly ensue.

Changing the name right now would ask the profession to overcome two extremely risky challenges at the same time. The first we are facing right now—that is, struggling with issues of identity and centrality. Drawing boundaries that both include and exclude people, ideas, and philosophies in an ever-changing world is extremely difficult and, to some extent, goes against the carefree openness of the profession's youth. Too much of this bounding/definitional argument could put the profession at risk of exploding just as its beginning to look and act like a "whole". A change of name, though, is even more risky. This second risk will play out in the eyes and ears of the public-at-large rather than in the halls of our own community. The wiser strategy is for HRD to determine at the most basic level what is core to the field—what's within and outside of our core beliefs, roles, competencies and specialized knowledge. Then, finding a new term that better reflects this will be the easy part!

The Real Work Ahead

A title that would better reflect the theory and practice of the field must be grounded in a considerable and multi-pronged study of the field's history, philosophical foundations, current roles, and future trends. Furthermore, the

community of HRD will have to be able to fluently justify why the new term better reflects the domain. Rather than spotlighting this proposition to rename HRD, the community of HRD scholars and practitioners should be focusing on coordinated action that will further and strengthen the profession and its professionals.

Stand for Professionalism

The first and one of the most powerful things that we can each do is take a stand for professionalism. Some in HRD have asserted that the process of professionalization is no more than "a battle for occupational closure and jurisdiction between different professional bodies" (Woodall, 2001, pg. 289) waged by professional associations motivated by "political reasons—in order to patrol their boundaries, maintain their standards, and bolster their power base" (Lee, 2001, pg. 335). This kind of critique focuses heavily on the undeniable shadow side of professionalism without exploring the essence and need for professions in the 21st century.

Current theories of professionalism focus on the "institutional characteristics in which members of an occupation *rather than consumers or managers* control the work" (Freidson, 2001, pg. 12). Professions evolve out of the belief that the tasks its workers engage in require *specialized* knowledge and skill—a unique capability that requires a foundation in abstract concepts and formal learning as well as an ample dose of discretion by its professionals. Professionalization is less about defending those tasks from encroachment of competing occupations and more about claiming that the work of these professionals requires something more than everyday knowledge.

It is also fundamentally about professionals being able to optimally apply their specialized knowledge combined with their values and ideologies to do what they know to be best in any given situation, rather than letting others control how that knowledge is applied. Freidson (2001) states that professionalism guards against mere technicians who:

> ...serve their patrons as freelancers or hired guns. Their loyalties lie only with those who pay them. In light of their shallow specialized knowledge, they may advise their patrons to qualify or modify their choices, but they do not claim the right to make choices for their patrons, to be independent of them, or even to violate their wishes.... The professional ideology of service goes beyond serving others' choices. Rather it claims a devotion to a transcendent value which infuses its specialization with a larger and putatively higher goal which reaches beyond those that they are supposed to serve. It is because of this claim to strive towards such values that professionals can claim independence and freedom of action rather than mere faithful service. (pg. 122).

If those of us who practice and study HRD believe that we and our colleagues fulfill a unique and valuable need in this world, and that the work we do requires specialized and discretionary knowledge, and, furthermore, that this work is built on an ideology of values that it more than just a simple commodity, then we are *obligated* to contribute to building the profession in any way that we can.

This necessarily involves identifying, elaborating, refining and growing the body of knowledge and skill underlying our work. It also demands that this specialized work be differentiated from the tasks of other occupations since activity is specialized only in relation to something else. We cannot talk of a single specialization—for one specialization to exist there must be two. They must have some relationship to each other and be defined by comparison (Freidson, 2001). This necessarily entails drawing boundaries and investing our energies in that which is our specialized domain.

The pressure for professionalization must also be considered in light of the "neoentrepreneurialism" world (Leicht & Fennell, 2001) that is emerging and in which our practitioners must execute their work. This world is characterized by (a) flatter organizational hierarchies, (b) growing use of temporary workers hired for specific tasks, (c) extensive use of subcontracting and outsourcing, (d) massive downsizing and replacement of skilled workers, (e) post-unionized bargaining environment, and (f) virtual organizations that exist as technological webs of interaction (Leicht & Fennell, 2001). In this world professionals will be caught up in a complex web of exchanges where stakeholders apply the pressure and whose major interests remain increasing profits (raising revenue and minimizing costs) and increasing accountability. In this world, professionalization is predicted to be the dominant way of organizing work (Leicht & Fennell, 2001), and it is this world in which HRD professionals must contextualize their work and ensure that it is done with the highest of standards and the best practices that we can know or theorize about.

Bound and Understand HRD

It is clear that another key area of work facing HRD is further tackling issues of bounding and defining the field. Many scholarly positions on the topic have been asserted in the literature throughout the past seven years. The

more recent positions vary from a strong call for definition (Grieves & Redman, 1999; Sambrook, 2000) to a refusal to define HRD (Lee, 2001; McGoldrick et al, 2001). What has become increasingly problematic in this on-going discussion is that various people are calling for different levels and types of definitions and all calling their aims "definition", assuming that they are attempting to define the same thing. The scope and bounds of what is being defined in HRD vary greatly and, as a result, comparing definitions is literally comparing apples to oranges.

What is needed in HRD is a rubric for thinking about definition of the field. As a long-time advocate of "definition" myself, I have often been misinterpreted as wanting *one* way for HRD to be. This is far from where I stand! I do believe however that it would greatly serve the profession to define its primary foci of interest at the most fundamental level and then for various philosophical paradigms within this "system-in-focus", if you will, to surface and articulate their sets of core assumptions, beliefs, methods, tools, and outcomes (or purpose).

A systems perspective (see Ruona, 2001 for an overview) on this will help to explain. A system, according to Joslyn & Turchin (1993) is generally thought to require at least the following: (a) a variety of distinct entities called elements, (b) that these elements are involved in some kind of relation, and (c) that this relation is sufficient to generate a new, distinct entity, at a new, systemic level of analysis. They go on to state:

> ...thus in the concept of the system we see the unification of many sets of distinctions: the multiplicity of the elements and the singularity of the whole system; the dependence of the stability of the whole on the activity of the relation amongst the entities; the distinction between what is in the system and what is not; and finally the distinction between the whole system and everything else. In the activity of the relation which creates a stable whole, we recognize a closure. (website)

By this definition, HRD can most certainly be viewed as a system. It is a multi-minded entity that is somehow singular in its whole. What is needed is to agree at a high level of conceptualization about what HRD professionals are focusing on and how its various elements in HRD inter-relate to produce that more stable whole. That certainly begins by asking what is it that HRD professionals focus on that Finance, Marketing and other professions do not? HRD is a complex web of activities that is clearly distinguishable from other professions, even the closely related ones (such as HRM and Adult Education) where the boundaries are fuzzier. This emphasizes focusing on the commonalities that dwell in HRD, rather than its diversity. For instance, one would be hard pressed to find any definition or conceptual framework of HRD that does not fundamentally include the notion of learning and people development. Learning and development are both concepts and core values that seem to cut across a multitude of individuals, groups, and emerging schools of thought in HRD.

Within HRD it is also necessary to acknowledge that there are multiple sub-systems that are likely being embodied in paradigms. Since the early-1990's, for instance, two paradigms that emerged on the HRD scene and have since occupied much attention have centered on whether HRD is for the purpose of improving performance or for learning (Swanson, 1995; Watkins & Marsick, 1995). Where this definitional argument got confusing was that for a while it seemed we had to choose between the two. Nothing could be further from the truth depending on how you bound/define HRD at the larger system level. A good definition of HRD *as a profession* should be broad enough to encompass and foster multiple paradigms, contexts, and mutations as well as be specific enough to identify the commonalities that bind these paradigms and types together and that differentiate the focus of our work (i.e. specialized knowledge) from other professions. This level of definition reinforces the idea that "while we might all construct slightly different definitions and realities of HRD, there does seem to be a degree of coherence" (Sambrook, 2001, pg. 175) and some level of agreement (Stewart & McGoldrick, 1996) about what HRD is. It reinforces the idea that the system of HRD is indeed greater than the sum of its parts.

Each of these sub-systems in HRD must then be expected to surface and articulate their own coherent ideas about the aims of their work and the assumptions that lead them to their desired outcome(s). These systems of thought and action (Ruona & Lynham, 1999) must each be conceptually sound and held up to rigorous standards of consistency. This certainly fits with recent urging for HRD to improve its capacity to theorize on the basis of solid research and surface philosophical and theoretical perspectives (Lynham, 2000; McGoldrick's et al, 2001). Other authors, too, have consistently called for alternative philosophies driving action to be explicated (Kuchinke, 2000; Ruona, 2000a) to deepen theory and provide the foundations for research and practice. Holton's (2000) effort to clarify and define the performance paradigm of HRD is an excellent example of just this kind of process. Sambrook's (2000) identification of three ways of thinking about HRD in today's organizations also is representative of this kind of thinking. And Ruona's (2001) reporting demonstrates that perhaps the learning vs. performance debate is not actually the most important difference between two emerging schools of thought in HRD.

Of course, no matter how well depicted, the reality will always be messier than the portrayal, and the boundaries between these various paradigms will play out differently. Each of these various paradigms, for instance, may be carried out in parallel to each other in one organization (Swanson, 1999), and the complexity increases as the

frame widens. Furthermore, HRD professionals are still themselves grappling with what they believe to be true about HRD and are faced with quite compelling alternatives that could be combined in unique ways of their own.

Further complicating this issue is that in this dynamic and socially-constructed world often times one paradigm will take front and center stage and tend to dominate—so much so that it begins to define the whole of HRD to the public-at-large and perhaps even within the profession. It is impossible to tell right now, but many assert that the "performance paradigm" (Holton, 2000) or "strategic HRD" (Walton, 1999; Sambrook, 2000) have become the essence and focus of modern-HRD (Bassi & Van Buren, 1999). We may be able to only know that in hindsight just as Mintzberg (1994) asserts organizations can only know their strategy as a pattern that emerged out of coordinated action.

What is clear from this discussion, though, is that it is vitally important to view this issue of definition as a dynamic process of multiple paradigms emerging, persuading, dominating, and fading while in the process the whole remaining largely stable and more than the sum of its parts. It is also clear that we must suspend asking only the question, "What is HRD?" and begin asking at least a few different questions. For instance, we should be asking:

- What paradigms can be identified in HRD right now?
- What is it that those philosophical schools of thought share *in common*?
- Which paradigm(s) are currently dominating and which one(s) are emerging or quietly contributing to the larger whole? How is that continuing to shape the whole?

This view of definition focuses more on our commonalities than on our differences, and more on inclusion rather than exclusion. Boundaries of this type will better equip HRD to focus on building a common body of knowledge and will foster discipline in our theorizing by demanding that we articulate the assumptions driving scholarly and practical work within them. This view also reminds us to be ever conscious and respectful of the dynamic and creative tension that emerges from these multiple lenses through which we can view HRD.

Conclusion

Renaming the profession of HRD is not an issue to be taken lightly. Although the notion is not entirely without merit, this paper has aimed to at least raise reasonable doubt that this is not the wisest course of action given HRD's current state. Rather it has argued that the efforts of HRD scholars and practitioners would be better invested in more deeply investigating the whole and parts of HRD and by drawing out the commonalities that are core to HRD professionals, contexts, and emerging paradigms. Only then will we be better positioned to judge the efficacy of the current name.

If it is to happen, it is clear that the onus will be on those seeking to change the name. They will need to build a case that clearly demonstrates that the current term does not sufficiently capture the essence of the profession or that the term unduly limits the theory and practice of what we understand HRD to be. They will also need to generate a compelling alternative name and be able legitimize it, which, of course, will itself be an act of definition. This brings us to one of the great paradoxes of this debate. Whether the name is changed now or changed later after the due consideration solicited in this paper, definitional issues will still remain. The pay-off in changing it later is keeping this dialogue within our own community rather than risking external credibility. The benefit is also in knowing that, if and when we do change the name, it will be for sound reasons that a majority of HRD professionals believe in and are willing to live everyday—that it will be a name that fosters coordinated action and strengthens the capacity of HRD professionals to carry out excellent practice.

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Enhancing the Career Success of Women Faculty: Mentoring as a HRD Initiative in Higher Education

Sharon K. Gibson
University of St. Thomas

Mentoring has been suggested as a strategy to promote gender equity for women faculty and to enhance their career development. This paper explores mentoring of women faculty, focusing on the key dimensions of roles and functions, outcomes, gender, and formal and informal mentorships. The review suggests the need for the HRD profession to assume an integral role in advancing research on mentoring and other career development initiatives for women in higher education.

Keywords: Mentoring, Women Faculty, Career Development

Although women have made significant gains in entering faculty positions over the past two decades, status inequities and disparities in major indicators of professional status—rank, salary, tenure, job satisfaction, and working conditions—continue to exist for academic women across a variety of institutional categories and types. The proportion of women has grown much faster at lower ranks than among senior faculty and, overall, women remain underrepresented in the academic ranks in proportion to their fraction in society (Bentley & Blackburn, 1992; Glazer-Raymo, 1999). In addition, a number of reports suggest that gender discrimination continues to be prevalent in many of our academic institutions. A recent *Women in Higher Education* publication identified four separate reports of bias against female faculty at Stanford University, noting that in February 1999 the U.S. Department of Labor began investigating complaints by 32 women and minorities, including 15 former and current faculty, who stated that they were denied tenure or promotion or fired because of their gender ("Is Stanford University Hostile," 2000). As noted by Hopkins (1999), a professor of biology at Massachusetts Institute of Technology (MIT), "Together, the messages suggest that gender bias is widespread in academe....At the White House, where I listened to women who work in diverse occupations, I learned that the problem may be universal in the workplace" (p. B5).

In exploring issues facing women in higher education with an objective of shaping a national agenda, the University of Minnesota 'Women's Voices, Women's Lives, Women's Solutions' National Teleconference Program Committee (1999) noted that equity remains an elusive goal, suggesting the need for continued and revitalized activism in the twenty-first century. Although there is recognition of the need to provide support to women in higher education, the culture of academia and the proportionately fewer women in positions of power makes this a more difficult agenda to fulfill. As stated by Johnetta Cole, the first African-American female president of Spelman College, now presidential distinguished Professor of Anthropology, Women's Studies and African American Studies at Emory University:

> Mentoring could help, but it's less available to those who aren't mainstream white males. The demands on women or minority faculty to mentor are intense. Most do this essential work generously, then find it ignored by those who evaluate them for promotion or tenure. ("Social Change Requires," 2000, p. 2)

In looking at the institutional practices that influence career opportunities for women in higher education, Watkins, Gillaspie, & Bullard (1996) state that, although more women have been granted entrance to higher education, there are few institutional incentives in place to encourage their long-term success in positions of prestige and authority. In addition, according to the American Faculty Poll, a nationwide survey of 1,512 full-time faculty at two and four year institutions, women reported being less content with their jobs than did men faculty (Sanderson, Phua, & Herda, 2000). Simply put, a recent *Women in Higher Education* newsletter had the following headline: "Their Jobs Could be Better, Female Profs Report" (2000, p. 20).

Statement of the Problem

The various perspectives in the literature indicate that the experience of women faculty in adjusting to their professional roles is particularly challenging in a system where men occupy the majority of tenured positions and where women have less access to informal information networks. Issues for women in academia span the academic lifecycle, affecting both those new to academia (junior faculty) as well as women in tenured positions. Faculty members often experience a rude awakening upon entrance into the academic environment and the experience of

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faculty is frequently described as fraught with difficulties and reflective of a chilly academic climate (Boice, 1991, 1993; Hamrick, 1998; Struthers, 1995; Whitt, 1991). Many faculty experience significant difficulties in adjusting to the varying demands of the academic role. These adjustment issues may be more prevalent among women than men, as women are perceived to have less access to sources of information and support in organizations and have historically been engaged in positions of lesser status (Maitland, 1990). And although women are entering academia, they have a success rate less than that of men and continue to be underrepresented in tenured faculty positions (Bentley & Blackburn, 1992; Glazer-Raymo, 1999; Hensel, 1991).

In addition, a recent study of women faculty in science at MIT emphasized the need to specifically study the experience of women faculty, not only as it relates to new faculty, but over the course of women faculty members' careers. This study found that the percentage of women faculty from 1985 to 1994 in the School of Science (approximately 8% female) had not increased significantly over this 10-year period. Subsequent interviews with tenured faculty found that these women reported increased marginalization as they progressed through their careers. Despite professional accomplishments equal to their male colleagues, women faculty received less salary, space, awards, and resources ("A Study on the Status of Women Faculty," 1999). A decade prior, Aisenberg and Harrington (1988) studied both women faculty who had deflected off the career track and those who were tenured and found similar themes of professional marginalism and exclusion. This study revealed a "continuum of outsiderness" in the experiences of both groups of women (p. xii). Watkins et al. (1996) also emphasized the nature of women faculty as 'outsiders' and identified that women continued to feel isolated and constrained by the existing structure or due to outside responsibilities. In addition, they noted that, although there is frequently no one to assist women faculty in gaining access to the organizational systems necessary for success, many women have not actively sought a mentor to provide this assistance. "In sum, cultural, attitudinal, and structural constraints inhibit women's progress" (Glazer-Raymo, 1999, p. 198).

So, is mentoring an effective human resource development strategy for academic women? In interviews with women faculty, Aisenberg and Harrington (1988) noted the following: "In story after story, then, the factor of support—received or not received—appears to be critical to the course of a woman's professional development" (p. 50). Similarly, the lack of pre-established mentoring and social networks was identified by Boice (1993) as indicative of maladaptive starts or 'early career fault lines' for women and minority faculty. Wheeler and Wheeler (1994) noted that adult development occurs throughout a faculty member's career lifecycle and that mentoring can assist with this process of continued growth. As such, mentoring is described as applicable for new faculty in both their roles as teachers and scholars (Jackson & Simpson, 1994; Johnsrud, 1994) and for faculty experiencing mid-career issues (Wheeler & Wheeler, 1994). In addition, the potential benefits of mentoring for women may be more significant than for men, as it has been suggested that women's learning and development is more rooted in relationships (Bloom, 1995; Gilligan, 1982). Mentoring may, therefore, be of greater value to women in their struggle to succeed in their roles as faculty members over the academic lifecycle.

A critical role of HRD is to support initiatives that foster employee contribution so as to contribute to organizational performance. As noted by McDonald and Hite (1998), "The historic and continuing function of HRD has been to maximize employee potential to contribute to overall organizational strength. This role clearly justifies involvement in women's career progress and interest in the ramifications of inadequate support for women in organizations" (p. 54). These authors further identify mentoring as a key HRD initiative and state that the HRD function might well be considered a natural place for the development of mentoring initiatives due to HRD's role in fostering career development aligned with the needs of the organization.

Given the potential of these types of relationships to positively influence both the development of women faculty and their resulting contribution to the organization, a review of the key dimensions of mentoring for women faculty in higher education, including the roles and functions of mentoring, mentoring outcomes, gender and mentoring functions, and informal and formal mentorships, appears warranted. This mentoring literature will be traced from early developmental theorists to current perspectives, focusing on the application to the career development of women faculty.

Mentoring in Higher Education

Theoretical Framework

Although social learning theory represents the theoretical framework for some articles on mentoring in education (Thompson, 1990; St. Clair, 1994), there is more emphasis in the education literature on the conceptual framework provided by adult development theory and on aspects specific to women's adult and psychological development. Levinson was one of the first adult development theorists to conceptualize the mentoring relationship

in a classical sense and as crucial to the overall development of the young adult (Levinson, Darrow, Klein, Levinson, & McBee, 1978). Vaillant (1977) supported the importance of mentoring in adult development in his longitudinal study of 95 male Harvard graduates. He found that the most successful men had been both protégés in a mentoring relationship and mentors to others. In Erikson's stages of psychosocial development, mentoring was identified as part of the developmental stage of 'generativity'. In this stage, individuals in mid-adulthood begin to feel a need to provide support and guidance to the next generation (as cited in Bee & Bjorklund, 2000). Other adult development writers such as Sheehy (1976) explored women's life patterns. Sheehy noted that women who had received recognition in their careers had engaged in a mentoring relationship.

In looking at women's adult development, Gilligan (1982) proposed that women's identity development, rather than being independent, should be considered as interdependent. According to Gilligan, relationships and caring are central concepts for women's adult development and that, when women engage in the adult milieu, "the world of relationship emerges and becomes the focus of attention and concern" (p. 167). In discussing women's ways of knowing, Belenky, Clinchy, Goldberger, and Tarule (1986) identified the importance of allowing women's voices to develop and be heard. Kegan (1982) drew from constructive-developmental psychology in describing development as a series of emergences from and relationships with "cultures of embeddedness" (p. 118). These can include parents, families, schools, institutions, and mentors. The culture, then, supports women rooting their identities in their relationships (Kegan, 1982). Specific to women in higher education, Johnsrud (1991) proposed that the orientation of women toward connectedness and interdependence is fundamental to understanding the growth and development of participants in a mentoring relationship.

These perspectives on women's adult and psychological development would suggest that the different orientation of women influences the nature of the mentoring relationship. As noted, the emphasis in this literature was on individual development, with very little focus on issues of organizational effectiveness. However, Johnsrud (1991) proposed that the establishment of mentoring relationships in keeping with these principles could enhance collaboration across the academic environment, and thus has the potential to contribute to both individual and organizational success.

Mentoring Roles and Functions

Mentoring roles and functions in the higher education literature were conceptualized in various ways. In their discussion of administrative mentoring, Anderson and Ramey (1990) described the role functions of educator, sponsor, coach, counselor, and confronter. An educator shares knowledge about the organization; a sponsor widens the protégé's exposure in the organization; a coach is responsible for the protégé's affective, cognitive, and psychomotor skill development; a counselor listens, advises, supports and encourages problem solving; and a confronter helps the protégé with identifying alternatives and consequences. In one of the larger studies of 347 faculty members stratified by rank and gender, Sands, Parson, and Duane (1991) performed a factor analysis on mentoring functions and identified four kinds of mentor roles: the friend (included providing advice and emotional support, participation in social activities, and defense from criticism); the career guide (included collaboration in research and professional networking/visibility); the information source (included providing information about the organization, both formal and informal); and the intellectual guide (included intellectual guidance and feedback). The complexity and multidimensional aspects of mentoring in higher education were apparent based on this research.

A number of authors have addressed the multiple roles of the mentor in the educational setting in supporting women's adult development. Bloom (1995) described the different ways that mentors stand in relationship to protégés (behind, ahead, face-to-face, and beside), positing that learning and human development for women is based in relationships. Similar to Gilligan's (1982) perspective on women's adult development, Bloom described mentoring as an expression of 'care' in helping protégés develop. Based on the work of Kegan (1982), Johnsrud (1991) proposed a conceptual framework for mentoring that incorporates values of affiliation, caring and interdependence. She described three stages of the mentoring process in academia as follows: the dependent stage (where the protégé needs guidance within the academic culture and where it is difficult to distinguish oneself outside of the relationship); the independent stage (characterized by the protégé reclaiming the sense of self as authority and differentiating oneself from the relationship) and finally, the interdependent stage (where there is the potential for both parties to maintain connectedness and separate identities). The roles and stages proposed by these authors were more grounded in the process aspects of the relationship than the functions that the relationship could provide, again supporting the predominant focus on individual development issues.

Outcomes of Mentoring

Studies of mentoring in higher education indicated that support and sponsorship contributed to faculty vitality and career success (Baldwin, 1990; Cameron & Blackburn, 1981; Corcoran & Clark, 1984; Henderson & Welch, 1993) and that the lack of pre-established mentorships and social networks contributed to a maladaptive start in one's academic career (Boice, 1993). However, it was unclear from these studies as to how sponsorship might be conceived as being either different or similar to mentoring. Williams and Blackburn (1988) studied faculty mentoring in eight nursing colleges and found that, of the potential mentoring types of role-specific modeling/teaching, encouraging, organizational socialization, and advocate, only role-specific modeling/teaching was related to the protégés' research productivity. In conceptualizing mentoring of faculty in academia, O'Leary and Mitchell (1990) emphasized the importance of reciprocity of benefits in a mentoring relationship, which would indicate that the relationship needs to be structured so that both mentors and protégés accrue certain benefits. A recent study by Mullen, Van Ast, and Grant (1999) of 165 faculty mentors and 166 faculty protégés supported this concept, in that those mentors who provided vocational and psychosocial functions for protégés also reported receiving greater benefits as mentors. Stalker (1994) also emphasized this notion of reciprocity in academia and discussed the outcomes of career advancement, personal development and professional identification as characteristic of an ideal mentoring relationship in academia from both the perspective of the mentor and protégé.

In their study of 220 agricultural education faculty, Eastman and Williams (1993) found that mentoring was not related to the majority of career development indicators included in the study. However, participants who experienced higher levels of mentoring felt more satisfied with their jobs and career progress. Hill, Bahniuk, & Dobos (1989) studied 224 faculty and also found that mentored faculty experienced increased job satisfaction and communicative support. With respect to performance scores on an academic career success index comprised of income, number of journal articles and book chapters, and faculty rank, these researchers found that both mentored and non-mentored male faculty received higher scores than mentored female faculty and that non-mentored female faculty had the lowest scores. Based on these results, the researchers concluded that while mentoring is helpful to both genders in academia, being male is more helpful in terms of overall career success indicators.

Gender and Mentoring Functions

Although based on the literature on women's adult development one might expect to see differences in mentoring functions in higher education based on gender, the findings of the studies reviewed do not support any strong conclusions. Mullen et al. (1999) found that female faculty mentors reported greater mentoring benefits, but the gender mix of the relationships did not seem to matter. Sands et al. (1991) found no significant differences in the quantity of mentoring experiences of the men and women in their study. However, a study by Noe (1988) of mentors and protégés in a formal mentoring program for educators did show some gender effects with mentors in cross-gender relationships reporting that protégés utilized the relationship more effectively than those in same-gender relationships and that females in general utilized the relationship more effectively than males.

However, factors other than gender may have a greater influence on the efficacy of mentoring relationships in the academic environment. Struthers (1995) studied 165 female professors who had been mentored and found that a key factor related to the utilization of power to support protégés' academic careers was the rank of the professor, regardless of gender. Johnsrud (1991) also discussed various problems with traditional mentoring conceptualizations in academia that had more to do with imbalance of power than with gender. These studies indicated that, possibly due to the hierarchy and power structures of academia, the mentor's rank may be an important consideration in mentoring relationships.

A number of articles also addressed the specific needs that people of color, especially African-American women, have in attaining leadership roles in education and in achieving success in academia. Mentoring and the development of personal and professional networks were identified as important in providing personal and emotional support to African-American women faculty and in assisting these faculty with negotiating institutional politics (Bowie, 1995; Peterson, 1990; Reid, 1990).

Informal and Formal Mentorships

Mentoring in past years appeared to have been more informal in higher education, with these relationships predominantly being established based on mutual negotiation between the parties (Sands et al., 1991). A study by Noe (1988) pointed to the difficulty of assessing these programs, due to the varying types of relationships that could be either negotiated or facilitated by the educational institution. In studying the determinants of successful assigned

mentoring relationships, Noe (1988) studied 43 mentors and 139 protégés engaged in a formal mentoring program designed to promote the personal and career development of educators aspiring to attain administrative positions. He found that protégés reported receiving beneficial psychosocial outcomes but limited career functions as a result of participation in the program. He suggested that mentoring relationships that provide both career and psychosocial functions were more reflective of the classical or primary definition of mentoring. These primary relationships were characterized by high levels of commitment on the part of both mentor and protégé and were perceived to have a higher impact on the individual's personal development. Therefore, according to Noe (1988), assigned mentoring relationships should not be expected to have the same benefits as that of a primary or classical relationship. In addition, those relationships that provided career functions were likely to be beneficial for instrumental reasons but were characterized as less intimate. Noe also noted that there might be individual-level variables not included in the study that could have a potent influence on the success of mentoring relationships, such as the individual's level of self-efficacy.

Notwithstanding the lack of clarity of research in education on mentoring outcomes of formal and informal relationships, there was a significant amount of literature recommending the establishment of formal mentoring programs in educational settings. A number of articles addressed the establishment of faculty mentoring programs as a component of faculty development (DiLorenzo & Heppner, 1994; Sorcinelli, 1994; St. Clair, 1994). Other articles suggested programs and strategies for mentoring junior faculty (Borisoff, 1997; Henry, Stockdale, Hall, & Deniston, 1994), outlined specific mentoring models or standards (Dagenais, 1997; Pistole, 1994), and discussed options for beginning teachers (Abell, Dillon, Hopkins, McInerney, & O'Brien, 1995; Ballantyne, Hansford, & Packer, 1995; Williams, 2001). This literature predominantly focused on illuminating mentor roles and functions and discussed benefits and limitations of these programs. Although potential negatives to mentoring including protégé dependency and inattentiveness, erratic behavior, inconsistencies on the part of the mentor, and lack of mentor competence were discussed by a number of authors (Anderson & Ramsey, 1990; Braun, 1990; Ballantyne et al., 1995), these programs were commonly viewed as having positive outcomes for both the mentor and protégé. However, specifics on program implementation and benefits of these programs tended to be based more on anecdotal information than on formal evaluation data. As St. Clair (1994) notes: "Community college administrators and faculty must realize the importance of documenting and evaluating existing mentoring programs" (p. 32).

Conclusions: Mentoring in Higher Education

The framework for a number of the studies and reviews in higher education was adult development theory, with an emphasis on processes and programs specific to women and minorities. The roles of mentoring in higher education were conceptualized quite broadly and tended to be process-oriented. Much of the literature focused on issues of individual development, with little attention paid to organizational implications such as gender equity or the achievement of organizational performance objectives.

Although there was general agreement that support and sponsorship contributed to faculty success, only a tentative conclusion could be made with respect to mentoring being related to outcomes such as job satisfaction and the various indexes of academic career progress. There was some indication that women utilized the mentoring relationship more effectively than men and may have gained greater benefits; however, a potential key factor to be considered in these relationships was the academic rank of the mentor, irrespective of gender. It was suggested that assigned mentoring relationships may be less reflective of the classical or primary mentorship role and, therefore, may not produce the same breadth of outcomes as those that are informally established. There was a high level of interest in implementing formal mentoring programs as a HRD initiative in higher education settings; however, not much was known about their effectiveness. Although mentoring programs were generally perceived positively, the need for better program evaluation to guide the development of these programs was identified.

Implications and Recommendations for Human Resource Development

Given the identified need to address issues of status and equity for women faculty, the expectations for positive outcomes of mentoring as a HRD initiative in higher education were high. Mentoring was suggested as a development strategy that had the potential to contribute to the ultimate career success of faculty and to assist in their socialization and orientation. In the literature, programs and practices specific to women in the academic environment were emphasized. For women, mentoring was suggested as a strategy to promote gender equity and as a means to enhance career development in the academic institution. Furthermore, mentoring has been noted as a key HRD initiative for women in terms of its role in leveling the playing field (McDonald & Hite, 1998).

However, this review pointed to the lack of clarity in the literature as to how mentoring can be utilized as a human resource development strategy to help women to achieve career success in their academic institutions. In general, the literature base for mentoring in higher education tended to be more conceptual than research-based. There was insufficient, and at times inconclusive, information with respect to certain key dimensions of mentoring in higher education, including outcomes, gender, and the relative efficacy of formal or informal mentorships, to know what exactly to recommend or what types of mentoring are likely to have an impact on issues of status and career progression.

It is important, however, that we not ignore the substantial support that mentoring has from practitioners in the education field. This support from those who wish to utilize this approach as a HRD initiative to promote gender equity/access and to enhance career development of women faculty would suggest the need to focus additional HRD research on this area. Based on the emphasis in the higher education literature on individual development, it seems apparent that there is a great opportunity for the HRD profession to become more engaged in advancing research on mentoring and other career development initiatives in the higher education context. It is likely that the educational institutions for whom these faculty work would also have an interest in the connection of these HRD initiatives to organizational outcomes. In addition, a number of authors describe complicating factors associated with mentoring of women that focus on issues of workplace culture and power relationships (Hansman, 1998; Schramm, 2000), which fall readily within the realm and interests of HRD.

As noted by Mullen, Steffy, and Van Ast (2001) in their study of mentors in the education context, the literature on mentoring is still in its infancy. Given the need to find ways to improve the experience and adjustment of women faculty so as to enhance their likelihood of career success and ultimately, their contribution to organizational success, enhanced integration of HRD research would likely provide beneficial outcomes and support the development of a more inclusive mentoring model for academic women.

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Emotions in Women's Career Development: A Merging of Literatures

Rose Opengart
Laura Bierema
University of Georgia

Abstract: A critical review of the literatures of emotional intelligence, emotion work, and women's career development was conducted in order to examine relationships, similarities, and differences between emotions and women's learning and career development. Common themes are identified, future research questions are posed, and implications for women and organizations are drawn.

Keywords: Emotions, Women's Learning, Women's Career Development

Women's career development is affected by the cultural context of the workplace. The workplace has always been, and remains, a male-dominated and male-defined context. Masculine traits help women advance in the workplace. For women to be successful in their careers, they have been required to conform to this male model and emulate the male cultural standards (Bierema, 2000).

Career development theories, developed by and for men, do not effectively depict the nature of women's careers (Schreiber, 1998). The complex, non-linear pattern of women's careers places them in a situation where they have to try to conform in order to be successful within the work context. Developing themselves and their careers in a male-dominated environment requires working within power structures that reproduce the patriarchal status quo and force women to emulate male attributes and traits in order to advance in their careers.

One trait associated with men is that of being non-emotional. Gender differences exist in the expectations and acceptance of emotional expression. It is assumed in our society that women are more emotional than men and women managers have been accused of being "too emotional" (Crampton, 1999, p. 92). Because emotional intelligence and the ability to do emotion work have been cited as critical to success in the workplace (Callahan, 2000; Goleman, 1995; Cherniss, 2000), it is important to examine any relationship between emotions, gender, and career learning and development. There are no research studies that look at this combination of literatures to examine this issue.

Using a theoretical framework of emotional intelligence, emotion work, women's learning and career development literatures presents an opportunity to merge these areas and to understand the impact of emotional intelligence and skillful emotion work on women's career development. Additionally, approaching this research from a feminist perspective is appropriate because this research examines women within the workplace, a traditionally male-oriented context. In order to examine and understand women's behavior within this environment, one must examine prescriptions for feminine and masculine behaviors and consider their development within the context of our patriarchal, masculine society. The feminist perspective therefore allows the researcher to consider the dissonance between prescribed behaviors according to gender and those expected in the organizational context. The purpose of this paper is to review the literatures of emotional intelligence, emotion work, women's learning, and women's career development and examine any relationship between emotions and women's learning and career development.

Research Methodology

The authors conducted a literature review of empirical and research based articles to understand the theoretical and conceptual aspects of emotional intelligence, emotion work, women's learning, and women's career development. Definitions and current knowledge in each field were synthesized, compared and contrasted against each other. This inductive analysis allowed for any conceptual patterns, relationships, and themes between the literatures to be identified and then described. Limitations of this research include the lack of empirical data. This study is limited to literature review and would benefit fom a future empirical study. Lastly, both authors are white women who have worked in the corporate context and therefore bring that particular perspective to this paper.

Emotion Literature

The two emotion literatures addressed in this paper include emotional intelligence and emotion work. Definitions of emotional intelligence vary somewhat between authors (see Table 1). Salovey and Mayer's (1990) model views

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emotional intelligence as a series of mental abilities including emotional perception, emotional integration or facilitation, emotional understanding, and emotional management. This model includes the capacity for identifying, inputting, and processing information. First comes the capacity to perceive and express feelings. Next, emotions alter cognition and facilitate thought. Emotions are then reasoned with and understood. Lastly, emotions are managed. The authors distinguish between their definition of emotional intelligence as an ability and others' definitions as including personality traits.

Goleman and Cherniss (1998) describe traits of emotional intelligence as having four dimensions: self-awareness, self-management, social awareness and social skills. Self-awareness involves knowing one's internal states, preferences, resources, and intuitions. Self-management involves managing one's internal states, impulses, and resources to facilitate reaching goals. Social awareness is defined as awareness of others' feelings, needs, and concerns. Social skills are defined as adeptness at inducing desirable responses in others (Cherniss, 2000). Bar-On (1997) characterizes emotional intelligence as "an array of noncognitive abilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14).

Table 1. *Definitions of Emotional Intelligence - Three Main Branches*

Salovey and Mayer	Goleman/Cherniss	Bar-On
The emotional intelligence system is: The capacity to process information and reason with emotion ✓ To perceive emotion ✓ To integrate it into thought ✓ To understand ✓ To manage emotion	**Emotional intelligence includes:** ✓ Self-Awareness ✓ Self-Regulation ✓ Self-Motivation ✓ Social Awareness ✓ Social Skills	**Emotional intelligence is:** "an array of noncognitive abilities, competencies, and skills..." ✓ Intrapersonal EQ ✓ Interpersonal EQ ✓ Adaptability EQ ✓ Stress Management EQ ✓ General Mood EQ

Research has also focused on the relationship between emotional intelligence and leadership abilities. Evidence suggests that emotionally intelligent leadership results in improved business performance (Goleman, 2001). McClelland (1998) studied division heads of a global food and beverage company and found that the divisions of the leaders with strengths in emotional intelligence competencies outperformed yearly revenue targets by a margin of 15 to 20 percent. In a 1994 Catholic Health Association study of outstanding leaders in health care, it was found that more effective leaders were more adept at integrating key competencies (Goleman, 2001). Another study indicated that managers with self-awareness, an important aspect of emotional intelligence, are rated as more effective by both superiors and subordinates than those managers without self-awareness (Megerian & Sosik, 1999).

Definitions of emotion work also vary somewhat (see Table 2). Emotion work was defined in Hochschild's seminal work (1983) as the active attempt to change an emotion held by an individual and as the active effort to change or control emotions in oneself or in others in order to meet social guidelines. Morris and Feldman (1996) used the term emotional labor to describe the effort and control necessary for the expression of organizationally desired emotion. However, Hochschild described emotional labor as a term used only when emotion work is being performed as a required part of the job, in exchange for a wage.

Most of the early research on emotion work in the context of organizations is discussed only in terms of organizational control of employee emotion, either by the elimination of, the controlled display of (Domagalski, 1999; Fineman, 1993; Putnam & Mumby, 1993), or the self-management of emotions (Callahan, 2000). The emotion work research has examined how organizations have applied expectations and boundaries for employees' acceptable emotional expression. Methods used to accomplish this include screening and selection, training, off-the-job socialization opportunities, and reward and punishment (Domagalski, 1999). The expression of emotion, once a personal decision, has become a marketplace commodity, with standards and rules dictating how and when emotion should be expressed (Morris & Feldman, 1996). However, emotion work has also been studied as an employee-initiated move serving individuals' purposes and benefiting the employee to assist them in work endeavors and gain increased power and legitimacy (Fabian, 1999; Kipnis & Schmidt, 1983; Lerum, 2000; Rafaeli & Sutton, 1991).

Table 2. *Definitions of Emotion Work - Main Branches*

Hochschild	Fabian, Kipnis & Schmidt, Lerum, Rafaeli & Sutton
✓ Organizationally imposed control of emotion, including elimination of or controlled display of emotions ✓ Performed in exchange for pay ✓ Not viewed as beneficial by the employee	✓ May be employee initiated ✓ For the benefit of the employee ✓ Women perform more emotion work than men

Another aspect of the literature is the gendered nature of emotion work. Women are prepared for and placed in emotionally expressive positions (Parkin, 1996), such as human resources. Wharton (2000) concluded that women's jobs demand more emotion work than do men's while Callahan (2000) described how culture and gender biases cause the need for emotion work. The author found that women continually suppress emotions and evoke unfelt

emotions regarding their devalued gender role in order to fit in to the culture. Some researchers suggest that emotion requirements function to reproduce structural oppression (Brody, 2000; Parkin, 1996). Socializing men and women to express different emotions serves to maintain polarized gender roles and power and status differences (Brody, 2000). Emotions are controlled by those in power who define what is appropriate, imposing a pathology on emotional expressions that do not fit criteria (Parkin, 1996).

Many researchers have discussed the significance of emotional intelligence and emotion work in the workplace. Cherniss (2000) argued that emotional intelligence contributes to the bottom line in any organization. Goleman (1998) discussed the importance of emotional intelligence over that of traditional cognitive measures of intelligence. Salovey and Mayer (1990) demonstrated quick recovery from emotional situations. Similarly, Salovey, Mayer, Goldman, Turvey, and Palfai (1995) found emotional intelligence to be an indicator of those who can respond flexibly to change. Emotion work has been described as necessary for one's successful job performance (Callahan, 2000; Hochschild, 1979, 1983) as well as an effective tool of social influence (Kipnis et al., 1980; Rafaeli & Sutton, 1991).

The previous sections have defined emotional intelligence and emotion work, and detailed empirical studies of these phenomena. We will now turn to a discussion of women's career development.

Women's Career Development

Women's career development has been dominated by male-oriented theories that inadequately illuminate women's careers. For instance, trait-and-factor theories explain career choice as matching individual ability and interest with a work experience (Holland, 1966, 1985; Parsons, 1909). Trait-factor theories of career development are inappropriate for women because they perpetuate social role and sex stereotyping and assume that women have equal opportunity to explore matches between their personalities and work environments. Super's (1953) influential Life Span, Life Space Theory explains vocational development as a process of making several decisions culminating in career choices representing an implementation of the self-concept. Choices in this model are regarded as successively good matches between the vocational self and the world of work (Swanson and Fouad, 1999). Super recognized five career stages as growth, exploration, establishment, maintenance and disengagement. This model has been highly influential but falters when applied to women because it assumes linear, uninterrupted career trajectories, and ignores the fact that women's careers tend to be non-linear, characterized by interruption as women move in and out of the workforce.

Women began criticizing classical career development models during the 1960's. Today there are calls for career development theory accounting for the experiences of persons from poor families, persons of color and women (Farmer and Associates, 1997). Women's career patterns are complex because of social expectations for them to assume primary care giving and homemaking responsibility. Several forces are shaping women's distinctive career development including juggling multiple roles, the increasing availability of alternative work arrangements, and the eroding (however slight) of structural inequalities (Bierema, 1998; Schreiber, 1998). Women tend to develop occupational qualifications that are easily transferable between jobs to support their discontinuous careers (Edwards, Robinson, Welchman and Woodall, 1999). Although theorists agree that women's careers cannot be adequately explained by traditional theories of career development, there is disagreement about whether existing theories need modification or new ones need to be created (Swanson and Fouad, 1999).

A key learning issue for women at work is forging an identity in a male dominated world. The multiple roles women are expected to play can contradict and confuse identity. Masculine social roles in paid work are valued in the workplace while women's informal roles in relationships and caring for others are devalued (MacRae, 1995). Yet, relationships and caring are important aspects of women's self-identity. The meaning that women attach to their paid labor and the extent to which it is a salient and meaningful component of women's identity has been largely ignored (MacRae, 1995). The devaluation of women's roles in the paid workforce in effect suppresses women's identification with relationship and caring and may cause them to be untrue to themselves in exchange for a paycheck.

Table 3: *Women's Career Development*

✓ Influenced by gender role and social expectations
✓ Impacted by women's primary care-giving and homemaking responsibilities
✓ Impacted by increasing availability of alternative work arrangements
✓ Current models lack diversity
✓ Women do not generally follow career patterns similar to men
✓ Women must learn and follow "hidden curriculum" to succeed in male-dominated work contexts

Workplaces are social institutions, and thus, mirror the power structures and oppressive forces in society. Organizations are primarily male-dominated and success normally involves emulating the successful (Diekman and

Eagly, 2000; Fagenson, 1990; Maniero, 1994). Hayes and Flannery (2000) suggest that like education, the workplace has hidden curricula that reproduce power structures. Evidence of this assertion is found in many studies suggesting that masculine traits help women advance at work. For instance, women at senior hierarchical levels in organizations scored significantly higher on measures of masculinity scales (Fagenson, 1990). Cejeka and Eagly (2000) explored the role of gender stereotyping in justifying social systems and gendered divisions of labor. They found that feminine personality or physical attributes were thought more essential for success in female-dominated occupations, while masculine personality or physical attributes were thought more essential in male dominated occupations. The masculine roles and personality attributes were also given higher prestige by study participants.

Diekman and Eagly (2000) conducted several studies to test the dynamism of stereotypes about men and women. They suggest that although women's presence in the workforce has created resistance to the corresponding change in women's roles and characteristics, there is a belief that women's personality, cognitive, and physical attributes will become more like those of men. In turn, these changes will provide greater access to top male-dominated roles and to socialization and training opportunities. In another study, Kolb (1999) found that the sex and personality trait of femininity had no significant effect on leader emergence, but self-confidence, attitude toward leadership, prior leadership experience, and the personality trait of masculinity did. Mainiero (1994) interviewed high-profile executive women and concluded that fast tracking was dependent upon assignment to a high visibility project, demonstration of high performance, attraction of top-level support, display of entrepreneurial initiative, and accurate identification with company values.

Career success is dictated by assuming masculine attributes, stereotyping gender roles, and following a set of "rules" for success. The result of these dynamics is the acculturation of women into male work culture, devaluation of women's gender roles, and deprivation of women's identity. Women's need or desire to buy into the "old boy" network may be explained by either suppression or unawareness of themselves as gendered beings (Bierema, 2000; Caffarella, Clark and Ingram, 1997). Women's uncritical career development not only causes them to adapt to a masculine model, but also prevents them from addressing power differentials or claiming a career on their own terms as women.

However, women in the workplace are in fact influenced by their gendered perspectives and experiences. For example, Egan (1996) considered the effect of epistemology on women's perceptions of the workplace, themselves and their work with relation to career mentoring. She applied the three epistemological categories of constructivists, proceduralists, and subjectivists as identified by Belenky, Clinchy, Goldberger and Tarule (1986). The author studied 41 women members of American Women in Radio and Television and concluded that mentoring needs depend on the type of knower the woman is.

'Constructivist knowers' provide the ideal model for mentoring success through meshing experience with objective reality, functioning with high levels of self-efficacy (viewing oneself as effective), and absorbing learning in all forms. Constructivists are likely to seek mentors in all guises, role models and consultants regardless of age, race, gender or appearance. On the other hand, 'procedural knowers' are less likely to seek mentors and to gain from being protégés. They recognize that men are favored in the workplace and view the women ahead of them as antagonists. Egan claims that the 'subjective knower' is unlikely to sacrifice relationship for career nor will she envision long term career goals if she has family obligations. She is unlikely to identify high career achieving women as role models and is lowest among the three knowers in self-efficacy. She will usually resist seeking career advice, but will listen to a sponsor or a challenge in recognition of her skills. Subjectivists, concludes Egan, are most likely to gain from formal mentoring programs. Egan's work, therefore, is a strong reminder that forging an identity in the workplace is not a "one size fits all" concern and that the woman's developmental level has an impact on her learning at work.

Common Themes

Several themes emerged during our comparative analysis of the literatures. These themes have significant implications for women's career development. The themes include learning and development patterns, career competencies, function of context, role expectations, the role of relationships, power issues, identity development, and issues of voice. Each will be discussed and implications for women, organizations, educators, and researchers will be delineated.

Learning and Development Patterns

The emotion literature tends to be highly linear and women's development literature tends to be non-linear. Emotional intelligence is described as having increasing levels of complexity that appear to follow a certain hierarchical trajectory. The first level in the developmental process is awareness of one's own emotions. This is thought to be a primary component of emotional intelligence, serving as a foundation for the other components

(Goleman, 1995; Lane, 2000; Salovey & Mayer, 1997). Lane and Schwartz (1987) proposed that emotional awareness, an individual's ability to recognize and describe emotion in oneself and others, is a cognitive skill that develops in a process much like that described by Piaget's stages of cognitive development. In order to progress to the next stage in development, one needs to first be accurately attuned to the self in order to differentiate one's own emotions from those of others (Lane, 2000). Much of the writing on emotional intelligence parallels cognitive development literature.

This linear development process is similar to some of the traditional adult development theories proposed by Perry, Erickson and Lovenger. However, such adult development theories have been criticized for basing their conclusions on empirical studies using only white men. More recent studies of women's development point to a less linear developmental process.

Traditional career development theories also suggest that people have linear, uninterrupted career paths. The theories assume a career progression that continuously builds upon previous experiences. A major shortcoming of these theories, however, is that they were developed by and for men, and they fail to address the complexity and variation that women experience in their career experience. Newer, non-linear women's career theories are emerging (Bierema; Schrieber, 1998) that account for social expectations of women as the primary caregivers and nurturers. These new theories also consider important variables such as age, race, social class, and sexual orientation (Bierema, 1998; Farmer & Associates, 1997; Mott, 1998; Johnson-Bailey & Tisdell, 1998), entrepreneurship (Inman, 1998), and training and development opportunities (Knoke & Isho, 1999; McDonald & Hite, 1998).

The implications for women include seeking career guidance that avoids automatically placing them into career paths or rewarding them for stereotypical female behaviors. Organizations can help by providing this type of career guidance and assistance. Educators need to teach alternative developmental models that apply to women as well as men. Researchers can explore alternative models and study intersection between emotional learning and career development.

Role Expectations

Social and contextual expectations are powerful teachers of appropriate roles and emotions. An issue concerning women in the emotions literature is the extent to which the emotional responses they learn and express in the workplace serve to reinforce patriarchal systems that ultimately oppress women. Success in many organizations requires women to emulate men, fulfill male role expectations, and suppress femininity and caring roles. Conversely, there has been a trend toward valuing the unique roles that women bring into the workplace by virtue of their gender.

Calas and Smircich (1993) explore this phenomena and ask "What is the historical significance of recent discussions about 'women's ways of leading' and the 'female advantage'?" (p. 1). They have termed such constructs as "feminine-in-management"—the process of women bringing "female" emotions and style to the workplace to foster performance and change—and argue that they do little beyond reinforcing existing gendered power relations in organizations. They suggest that valuing essential women's qualities creates an illusion of opportunity and equality in the managerial world while blocking critical reflection on the underlying assumptions of the structure of patriarchy. Recently the *New York Times* (2001) published an article on "Bully Broads." Bully Broads is a training program for women who have become too "masculine" and hard driving in their roles (according to their male managers). They attend training to soften their rough edges and become more feminine in their management style.

Similarly, in the emotions literature, evidence exists for an interaction between a leader's gender, expressed emotion, and perception of effectiveness (Lewis, 2000). Leader effectiveness ratings decreased dramatically when women expressed anger, but remained unchanged when male leaders expressed anger. On the contrary, sadness expressed by women resulted in increased perceptions of leader effectiveness, yet expression of sadness by male leaders led to decreased ratings (Lewis, 2000).

Implications exist to increase the consciousness of role expectations. Women need to be critical toward expected roles and learning and training opportunities. Organizations need to be aware of creating and reinforcing role expectations and of sending conflicting gender role messages to their employees. Educators can help increase consciousness of gendered power relations and researchers can study role development and women's efforts to find voice in the workplace.

The Role of Context

One of the similarities between the literatures of emotion and women's development is the importance of context. Context has a significant impact on the development of women's careers, as well as in the development and effective use of emotions. Emotions can only be understood within a particular social context. They are socially learned and interpreted and culturally specific. Many explain emotions not merely as biological forces, but as

learned behaviors from both early and work-related organizational socialization (Domalgalski, 1999). Comparatively, learning is situational and dependent on the environment that provides tools and cues to guide learning.

Career development depends on the work context to yield behavioral clues. A challenge of working in a male dominated organization, however, is that the context functions to reinforce women's conformity to the patriarchal standards characterizing organizational culture. In both instances therefore, development of emotional intelligence and emotion work abilities as well as career development, women's learning and development are framed by the situation and context that can have either positive or negative consequences for women employees.

The importance of context creates many implications. Women need to understand how their context affects them. Organizations, educators, and researchers need to examine and understand how organizations and the patriarchal structure reinforce gender stereotypical behavior, including specific emotional responses.

Relationships and Connection

The importance of connection in women's learning and career development is repeated throughout the literature (Belenky et al, 1987; Caffarella & Olson, 1993; Gilligan, 1979). Belenky et al. (1987) concluded that connected learning is most effective when members of a group meet over long periods of time and know each other well. They define it as learning that is grounded in relationship, reciprocity and conversation. It is also a means of identifying common ground among learners. Further, it has been found that developing a sense of connection is an important feature in the development of gender consciousness among women (Bierema, 2000).

MacRae (1995) found, in a study of elderly women, that the women tend to describe themselves in terms of their interpersonal relationships. Gilligan (1979) also argues that relationships and connectedness with others are of central importance to women's development and writes, "the female comes to know herself as she is known through her relationships with others" (p.437). Giesbrecht (1998) found through factor analysis that in the construction and negotiation of identity, "male perspectives emphasized instrumentality and female perspectives emphasized social connection" (p.7). Ruddick (1996) notes that the idea of a relational self or that humans are composed by the relationships in which they participate, helps explain how women become connected knowers. Finally, Caffarella & Olson (1993) note in their critical review of the literature on the psychosocial development of women that: "What surfaced as central to the developmental growth of women was the web of relationships and connectedness to others" (p.135).

Relationship and connection are clearly pivotal to women's development, yet often women and men are expected to suppress emotions in the workplace and display emotions that are the opposite of how they feel. The emotion literature also discusses awareness of others' feelings and the ability to be inspirational and motivational as aspects of emotional intelligence. These abilities imply a connection towards other people. The contradiction it seems is not with developmental processes or emotions, but the contexts in which both are actualized.

Women need to use their own initiative to seek out mentors and networks and organizations can assist and support these relationships. Educators need to teach of the importance of developing mentoring relationships as well as particular skills involved in accomplishing this. Researchers can examine different forms of developmental relationships in the workplace to help determine which are the most effective.

Identity Development

Many fields have broadly conceptualized the self in terms of multiple identities, with individuals holding perceptions of themselves in terms of traits and values, attributes, experiences, thoughts and action, physical appearance, demographic attributes, and dispositions of various sorts (Leonard, Beavers, & Scholl, 1999). Gender is socially constructed and a part of human identity development that is based on life experience. Self-identity has been found to be created through participating in work, private life, community and other social entities. Gender socialization may result in both identity development and identity conflict. For instance, women and men may be socialized to fulfill sex role expectations that conflict with their self-image, goals, or occupation. MacRae (1995) suggests that women's identity has been conceptualized in terms of formal roles in the paid work arena dominated by male experience while their informal roles, such as relationships and care giving, have been ignored and made invisible. When women try to challenge formal or informal roles, resistance is high and leveled from friends, families and co-workers. This results in high levels of emotion work to fit into the work culture.

Implications exist for assisting women to develop an identity with which they feel comfortable. Organizations need to avoid framing women into particular roles, allowing women to effectively and authentically develop themselves. Educators can teach the importance of developing identity and the fact that gender is socially constructed. Researchers can assist the effort by studying identity development and its interaction with gender construction.

Devaluing of Women

Theories of women's development and career development underscore the fact that women have been devalued in theory and in social context. Their experiences have been ignored, minimalized, or lumped in with those of men. Emotion work functions to devalue women by the organizational expectation that women will emote in ways that serve the business. Career success rests on getting their emotions "right." Often this involves suppressing or denying identity as women altogether. Such suppression helps women succeed individually, but it only reinforces oppressive patriarchal culture that prevents women from accruing power and influence.

Organizations, educators, and researchers alike need to make women and women's identity visible. At the same time they must accept gender differences, it is also crucial to avoid framing and reproducing gender role stereotypes. Women need to first become aware of this gender devaluing and increase their gender consciousness in order to challenge oppression.

Future Research

The purpose of this literature review was to examine the literatures of emotional intelligence, emotion work, women's learning and women's career development in order to examine similarities and differences between the literatures, as well as derive some implications for human resource development and women's career development. We have several recommendations and questions for pursuing future research:

- ✓ How does emotional intelligence develop for women in the workplace?
- ✓ What types of emotional learning experiences benefit women's development and career development?
- ✓ Do patterns of women's emotional development differ from men's?
- ✓ Do patterns of women's emotional development differ based on race, social class, sexual orientation, etc?
- ✓ To what extent does emotion work reinforce patriarchy?

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The Meaning of Korean Women's Experience of Reentering the Workforce

Yu-Jin Lee
Gary N. McLean
University of Minnesota

A qualitative study of the experiences of reentry women in Korea was conducted using phenomenology. The research question was, What is the meaning of the experience of women reentering the workplace after a career interruption caused by marriage or childbearing? Individual telephone interviews were conducted with each of six women who had reentered the workplace after a career interruption caused by a change in the women's family roles. The interviews yielded much rich, detailed, and revealing data.

Key words: Women's Reentry, Career Interruption, Korea

A global trend appears to be an increasing number of working women, at least in industrialized countries. The USA, Europe, and Asia have witnessed more women working outside the home over the past decades (Santrock, 1994; Hakim, 1996; Kim, 1999). As women enter the workforce, societies, at levels from families to nations, have kept altering and adapting their explicit and implicit rules and policies to accommodate working women's needs.

In the last 30 years, Korean women's economic participation rate has been increasing gradually, and women are becoming essential in Korea's labor force. In addition, the number of women completing higher education has increased (Moon, 1998), adding more professional work and a greater variety of types of work into women's labor options. In the past, these options had consisted of unskilled and low paying jobs. Despite this change, Korea's female workforce development has a long way to go, even compared to other Asian countries such as Japan, Hong Kong, or Singapore. Korean women, especially, even those with higher education, have a high tendency of career interruptions due to marriage or childbearing and childrearing (Kim, 1999). This pattern inhibits continuous workforce development, impeding women's potential.

After the economic crisis that hit Korea in 1997, many became unemployed from their previously trustworthy lifetime workplace. Now, the concept of a lifetime workplace is gradually disappearing. With this unstable economic trend, a two-income family has become desirable. More women want to continue working without career interruptions, and an increasing number of women want to reenter the workforce after a career interruption.

Unlike the situation in some other countries, it is not easy to return to school in Korea because of the rigid higher education system. When reentry women want to change their career field, it is not easy for them to obtain a good education or training in higher education. Thus, most of them turn to short-term vocational schools or social and cultural education centers where skills and knowledge are usually geared toward low-paying, low-level jobs. As a result, many reentry women settle for low paying jobs that do not require a high level of knowledge or skills.

As a researcher and a Korean single woman, Lee's interest in reentry women came from friends who had quit their jobs after marriage or child bearing. Most said that they hoped to go back to work, but their plans were vague. Some of them tried to reenter the workplace several times, but they have not yet succeeded. The sandwich generation grew up believing that a normal and ideal family has a father as the sole breadwinner and a mother who is the full-time homemaker. However, with the recent unstable Korean economy in the last couples of years, the concept of dual-career women has become idealized and desirable. Starting from these personal interests, Lee wanted to understand those women who have already experienced or who are currently experiencing reentry in Korea. The purpose of this study was to uncover the meaning of the reentry experience of women in Korea.

Literature Review

Reentry women has generally described women reentering educational institutions or the labor force after an absence for an extended period of time, ranging from a few years to over 30 years (Padula, 1994). In this study, it refers to women who have reentered the workforce after a career interruption due to their family responsibilities, such as childbearing or childrearing. Most of the studies done with reentry women have focused on adult women students (Petersen, 1991). Thus, there is a lack of research concerning women's reentering the workplace in Korea.

There is no comprehensive theory of women's career development (Betz, 1987). However, it is well documented that career developmental models based on male experiences cannot be applied to women's career

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development (Eastmond, 1991). This discrepancy based on gender can be partly explained by the fact that women tend to have more interruptions in their career paths than men, whose career paths tend to be more linear.

Research regarding reentry women was conducted mostly in the 1980's and early 1990's in the USA, but these studies have focused mostly on reentry women in educational settings (Padula, 1994). It is not known whether this group of reentry women differs from those reentering the workplace with respect to their roles, values, concerns about family, personalities, general characteristics, motivation, and the like.

According to Even (1987), career interruption partially explains the wage gap between male and female workers. If female workers do not return to work after the typical maternity leave, the likelihood of an early return to work quickly becomes remote.

Watkins (1988) illustrated what reentry women would face when they contemplate returning to work:

> Women who return to work after several years find that the men and women they used to work with have received regular pay increases, promotions, and on-the-job training that have made them more valuable to their organizations, at the same time that the reentry woman's skills have grown rusty and outmoded (p. 52). They must compete with younger men and women for jobs they would long since have outgrown had they stayed at work. Their social status while at home has often been a function of volunteer work and of their husband's status (generally higher than that associated with the jobs for which women must now apply), and they may feel threatened by having to consider jobs their children would find demeaning. (p. 54)

Research Question and Methodology

The research question was, What is it like for Korean women to reenter the workplace after a career interruption caused by marriage or childbearing? Because individual reentry women have different backgrounds and contexts, we believe that it is important to understand the core essence of the experience of reentry into the work force after a career interruption.

A qualitative investigation using phenomenology was undertaken. Qualitative research is used when the underlying theories are not formulated, the existing theories are questioned, or when the phenomenon has received minimal empirical examination and requires an exploratory descriptive approach (Denzin & Lincoln, 1994). Among several qualitative approaches, phenomenological research emphasizes the meaning of lived experience; it examines how human beings construct and give meaning to concrete social situations (Creswell, 1998). The focal point of phenomenological research is to "borrow" other people's experiences and their reflections on their experience for better understanding of the deeper meaning or context of the whole human experience (van Manen, 1990).

Methods

Participants and Researchers as Persons

Six Korean reentry women participated in this study. The reasonable number of participants (or subjects) in a phenomenological study varies from 3 to 10 (Creswell, 1997; Dukes, 1984; Polkinghorne, 1989). The researchers considered six participants to be enough to describe the meaning of the phenomena in this study. The snowball sampling method (Patton, 1990) was used to locate participants with the help of friends. Two Korean women development centers helped locate two participants. Two criteria were used in choosing the interview participants: the participant must have had the experience of reentry into the workplace after at least one year of career interruption caused by the demands of the women's domestic roles, and the participant must be willing to participate in the research and share their reentry experiences. Table. 1 shows a brief description of each participant. Participants signed consent forms that stated the purpose of the research, the process of the interview, the possible advantages and disadvantages of participating in the study, and their freedom to quit at any time during the interviews.

Lee was 29 years old at the time of the research, a single female Korean Ph. D. student studying Human Resource Development at the University of Minnesota. She graduated from a women's college in Seoul, Korea, and has been in the USA for 6 years to study. McLean has a longstanding interest in the issue of gender equity (see, for example, McLean & Crawford, 1979). Further, McLean has a longstanding interest in Korea, having four adopted Korean children, having several former and current Korean advisees, conducting research and consultancies in Korea for more than a decade, and editing *Korean Philately*, the official journal of the Korea Stamp Society..

Table 1. *Participant Demographics*

Participant	Age	Years of Marriage	# of Children	Education	Job before Career Interruption	Job after Career Interruption
B	28	2	none	College	Teaching assistant	Counselor
C	30	3	1	College	Secretary	Secretary
J	30	5. 5	2	College	Secretary	Secretary
Y	29	5	2	2-year college	Telemarketing	Credit card customer service
L	32	6	2	High school	Sales person	Insurance agent
P	30	5	1	2-year college	Graphic design instructor	Web design instructor

Data Collection

The interview questions were semi-structured in order to stimulate the participants' responses about their reentry experiences:

- Describe your experience of reentry into the workplace after a career interruption caused by marriage or childrearing?
- Describe your first week after reentry into the workplace?
- Do you think about work differently after reentry?
- What did the experience of reentry mean to you?

These questions were used as guiding questions, and the interviews were led openly and freely as the participants revealed their experiences; other questions were asked for a fuller description of their experiences.

Since the senior author is studying in the U.S. and the participants were in Korea, the interviews were conducted via telephone. Participants were asked to find a place where there would be few interruptions and where they could express themselves freely. The interviews lasted about 60-90 minutes and were tape-recorded and transcribed verbatim in Korean.

Data Analysis

Giorgi (1975) developed procedures for data analysis in phenomenological research. The procedures help researchers bracket their preconceptions and rigorously focus on the phenomenon for the other. By dwelling on and reflecting upon the exact words of each person, the researcher can uncover the salient features of the phenomenon (Polkinghorne, 1989).

The procedural steps used, as outlined by Giorgi (1985), were:

1. Gaining a sense of the whole.
2. Identifying meaning units.
3. Labeling and defining themes.
4. Transforming the participants' language into a more abstract language.
5. Synthesizing the transformed meaning units from all participants' protocols into a final general description of the phenomenon being studied.

Since the raw data were in Korean, the text was not translated until the fifth step of the data analysis. Then, the results of the data analysis were translated into English.

Sense of the Whole. The first step of the analysis involved gaining an overall sense of the major ideas that were provided by the participants by reading the whole interview text over and over again. The following is a part of one interview text provided in order to give the readers a holistic sense.

The reason I made up my mind to go back to work was a thought that came to me very slowly, but firmly, that a woman also needs economic power. It was strong. That point came...right after I quit my former job....You know that you spend much more money when you get married. I had to save. I also had a plan to buy a house. Those issues struck me so strongly after I quit my job. Strange, huh? But time passed so quickly while raising my daughter. When I thought about returning to the workplace, people around me said it's very hard for a married woman to get a job, but a single woman could change her job very easily. Those rumors made me nervous. My insides were stirring and I felt sick. The moment when I was informed that I got a job again...I felt like I had conquered the whole world.

Identifying Meaning Units. After gaining a sense of the whole by reading and dwelling on the interviews, the

senior author identified blocks of meaning units in each participant's interview. Meaning units are "constituents of the experience, not elements, in that they retain their identity as contextual parts of the subject's specific experience" (Polkinghorne, 1989, p. 54). Each meaning unit was written in the participants' own language.

Labeling and Defining Themes. The senior author labeled each meaning unit with a simple and concise statement of the dominant natural meaning of the unit and wrote a sentence in the senior author's words that defined the theme. Each participant's interview text was printed on papers of different colors and then was cut into meaning units. A theme was then marked on each meaning unit. After eliminating meaning units unrelated to the research question, meaning units were clustered into similar themes.

Transforming the Meaning Units into More Abstract Language. The research question was applied to each meaning unit and its accompanying theme to draw out aspects related to the research question. These were re-described in language from the perspective of women's career development. Reflection and imaginative variation were used in this process.

Synthesizing: Universal Wisdom. The last step of phenomenology requires moving from the parts (individual interviews) to the whole (all interviews). Synthesis involves tying together and integrating the list of transformed meaning units into a consistent and systematic general description of the essential structure of the experience under investigation (Polkinghorne, 1989). In this procedure, the re-described meaning units were read through and then a general description of the structure underlying the variations in the meanings were described.

Results

Seven themes emerged from the data analysis: 1) giving up the fantasy of becoming a happy homemaker; 2) feeling not welcomed; 3) first come, first served; 4) feeling empowered; 5) feeling guilty; 6) being vulnerable to the patriarchal workplace culture; and 7) redefining one's meaning of work. Two universal wisdoms were perceived from the participants' experiences: experiential life learning and the desire to be self-sufficient. Each theme follows; participant initials are used for attribution. The following meaning units in each theme are inclusive but not exclusive. Only three to four meaning units in each theme are presented here due to the limited space.

Giving up the Fantasy of Being a Happy Homemaker.

Five of the participants were surprised to find that they did not enjoy being a full-time homemaker:

I was bored to death after staying at home for two months, and I was very tired of just cooking and cleaning all day. One day I really had a deep thought about why people should have three meals a day (J).

I quit my job after the wedding. I believed that becoming a homemaker would be the key to my happiness. You know... baking cookies... From my childhood, I've always held a grudge against my working mom, and I wanted so much to stay home after marriage. I didn't want to give that emptiness to my child. But, to my surprise, I felt emptiness at home. I felt like my feet were not grounded on the earth. Even when I was with my son, I felt confined, lonely, and alone. I found myself envying my working mom. I realized that being a stay-at-home mom was a harder job for me (C).

I was hungry for conversation all day. I was a graphic design instructor before. You can imagine how hungry for adult interaction I was. I was practically deaf for three years. Negative thinking haunted me, and it led me to "housewife's depression." If I had felt happy staying home, I wouldn't have gotten a job again (P).

I just don't do housekeeping well. I enjoy a clean and organized home only when other people do that for me. So, I thought I could do this level of housekeeping even if I worked outside. I thought I was better at working (Y).

Feeling Unwelcomed.

Participants found to their dismay that, when they returned to work, the workplace did not welcome them:

I was 29 then, and I didn't think that I was that old to get a job. Because I didn't have a child and didn't live with my parents-in-law, I thought that nothing could block my getting a job. But every interviewer asked me if I was married and rejected me (B).

First, I contacted a graphic design institute for a job as an instructor, but they told me they didn't hire married women. They seemed to worry that my married life would interfere with my teaching (P).

I began searching for a job that would fit me. I preferred a job with a regular income and fixed office hours, such as an office job. But I couldn't find such a job for a married woman. So I chose a sales job (L).

First Come, First Served.

The participants found that they accepted the first job that was offered, rather than taking more time to find something that might be more appropriate.

I accepted a job offer as a temporary secretary, filling in for other women on maternity leave. I knew that it was not a good option, but I couldn't help it. I didn't have any power in this situation. I had to swallow my pride to get a job. If I had insisted on a full-time permanent position, there wouldn't have been any job for me. And that means that I would be getting further away from the job market as time passed (J).

While I was doing a part-time job, one of my friends introduced me to an insurance agency. At first, I thought I'd just give it a try to become an insurance salesperson, just for three months to see if I liked it. I didn't think about it seriously (L).

I searched for a job for a while and couldn't find any good one. One day my sister hooked me up to a telemarketing job, and I took the job without hesitation. One year later, I quit that telemarketing job because it wasn't my type of work (Y).

Feeling Empowered.

The outcome of the work experience was to give the participants a sense of empowerment, both at work and at home.

People recognize that I became brighter and more cheerful. In the past, some told me that, even when I smiled, they could see the sadness in my eyes. Now any word coming out of my mouth is positive. I became positive. My body was full of irritability before, but these days, I take care of my children differently—better and more patiently. Even though I feel tired after work, I help my children with their homework at least 30 minutes a day, which I didn't do before. I became much more confident in myself. To be honest, I still have some fear, but I think I will be able to be a leader for my family and raise my children in case my husband gets laid off (L).

When I stayed at home, I didn't put on makeup. I didn't take care of myself. Now I take good care of myself—my appearance, my attitude, and my behavior. I feel good about myself. And my husband likes it, too (Y)!

When I didn't make money, I hesitated to spend money on myself. I didn't feel right about buying myself clothes, buying my friend lunch, or paying for my lessons, such as English tutoring. People would laugh if I got English tutoring. English tutoring...what for? Now I can do those things without feeling sorry for my husband. Even when I have to help my parents with money, I feel so free that I don't have to get permission from my husband. It feels good (J).

I feel as though I were an iron woman. I work, take care of the children, support my husband, and do my best as a good daughter-in-law for my parents-in-law (L).

Feeling Guilty.

In spite of the sense of empowerment that most participants felt, there was also a sense of guilt about what their decision means to those around them.

My mother is babysitting my daughter while I am at work. I feel so sorry and thankful that she does this for me. She comes to my home every day from afar. My mother spent her whole life raising her children, and now again for her granddaughter. When my daughter was in daycare, she looked sad and weak. She needed special care and attention as there were more than 17 kids per teacher. She got so sick one day that I had to quit my job temporarily to take care of her. I felt very guilty about her sickness. I didn't tell my husband's family that I went back to work. They would disapprove of my working (P).

My husband lost 10 pounds after I began working because I could not cook as often as I did before. When my parents-in-law noticed his weight loss, I felt ashamed and guilty (B).

The first day I said goodbye to my son at the door to go to work, I cried so hard. I felt so sorry for him even though he is too young to know that I am off to work. For a couple of months, I didn't even put any picture of my son in the office. It hurt very much (C).

It troubles me every day more than 12 times a day, especially when I have to go out to work early in the morning before my children get up, and I can see them only two hours at night, I feel bad (Y).

Being Vulnerable to the Patriarchal Workplace Culture.

The participants recognized that the rigid workplace culture does not accommodate their personal needs.

My department consists of mostly women. They are all single, except for me. They go home after 9 pm because there is always overtime work. I try to get out one or two hours earlier, but I feel odd. I sometimes feel isolated because I am the only married woman there. It seems that I am the only one complaining. In the beginning, the employer told me that closing time would be 5:30 pm. If I had known then what I do now, I wouldn't have chosen this job (Y).

I love my workplace. It's my second home. It has a daycare so that I can bring my kid whenever she wants to go with me. Nobody frowns on bringing your child to work. They treat the kids like their own nieces and nephews. I guess it's because my workplace is a women's development center. I have been in an ordinary workplace before where I had to please my employer and couldn't request any special favors for my personal needs. They didn't want to accommodate employees' creative thinking and demanded that I adjust to their way of socializing—drinking. I'll never go back to that ordinary workplace again (P).

I don't think my workplace can afford my maternity leave. It's a tacit agreement. Actually, I took over my job when the former employee left to have a baby. Nobody told me to leave, but I just know how it works here. I wish I could find a more stable workplace next time (B).

Redefining the Meaning of Work

The participants recognize that what they work for is not the same as it was before they left their original workplace.

If I could continue working without a break, I would consider working to be so boring and would take it for granted, wondering what I was working for. I would be dreaming about something other than working. Making money is definitely important, but socializing with people at work is also a joy. Meeting people and doing things together... I didn't know that it would mean so much to me. You don't appreciate what you already have. Then once you lose it, you realize how valuable it was (C).

In the past, it was an obligation that led me to work. I had to support my family with my salary. Even when I didn't feel like working, I had to do it because my family's financial situation was not good. But now I am really enjoying my job, free from the stress of having to make money. I would do my job, even without getting paid (P).

In the past I worked just because I wanted to set a role model as a professional secretary. I wanted to show people that the job of secretary could also be performed professionally. However, that doesn't matter to me anymore; now I work to save more money while I am still young. Nowadays, it's very hard to save money and set a financial foundation if the husband alone works (J).

Discussion

The seven themes are presented in the order of the women's experiences. The first theme, giving up the fantasy of being a full-time homemaker, emerged when the reentry women in this study were at home during their career breaks. All of the participants in this study considered marriage and childbearing to be significant changes in their lives to the extent that they had to change their lifestyles dramatically—quitting work and staying home. They fantasized about being a wife and full-time mother and idealized staying at home. Furthermore, they did not doubt that they would regret that decision to stay home later. They soon realized that being a full time homemaker was not as satisfactory, rewarding, and interesting for them as they imagined.

The second theme, feeling unwelcomed, is derived from the experience of finding that getting hired was much narrower and harder for married, reentry women than for younger, single women. The participants became frustrated and discouraged when they saw "female singles only" job advertisements or when they were rejected at job interviews due to their marital status. The participants suddenly felt that they had become "old and second hand" in the labor market. On the other hand, interestingly enough, they understand the perception of reentry women as rusty and outdated in the labor market in Korea.

The next theme, first come, first served, concerns the moment they chose their jobs upon reentry. After facing the narrow and harsh labor market reality for reentry women, they chose whatever came first. Some women regretted their decision later if they had not obtained enough information about the job, including its downsides and its dead-end reality. Some women are satisfied with their decision if it leads to career progress.

The fourth theme involves feeling empowered. All of the participants felt empowered after they reentered the

workplace--financially, physically, emotionally, and mentally. This feeling is a positive reinforcement for reentering the workplace. The participants compared this feeling with how powerless they had felt when they stayed at home. One participant said, "It feels like I conquered the world." Two participants in this study stated that they learned how to love and take care of themselves. Some mentioned that they did not want to be superwomen, but they just felt more energized to do the housework more joyfully and effectively than before.

The fifth theme deals with feeling guilty. This feeling is a downside of the reentry experience. These women felt guilty for anybody who was negatively affected by their reentry into the workplace. All participants who have a child or children expressed guilty feelings about not being able to stay at home with their children all day. Three women felt sorry for the sacrifices of their mothers who were taking care of their children. This guilt appears to come from the socially shared belief that mothers should be the sole caregivers who provide family members with comfort and full attention. They had inner conflict over their decision to go back to work when they feared that their children would be negatively affected.

Being vulnerable to the rigid workplace culture emerged as the sixth theme. Most of the workplaces in Korea are patriarchal. Goldberg (as cited in Hakim, 1996) defined patriarchy as "the overwhelming number of upper positions in hierarchies are occupied by males (p. 7). " Despite the increasing number of working women in Korea, the customs, policies, and tacit rules are intertwined for the benefit of the patriarchal organizations. When the participants confront this patriarchal culture, they feel vulnerable and powerless. As a reaction, some try to accept and adjust themselves to the rigid workplace, while other women with choices try to avoid the rigid patriarchal system and choose more liberal workplaces, such as multinational companies in Korea. All participants expressed some longing for a more flexible and egalitarian workplace, where their personal needs could be met in harmony with the organization's needs.

The last theme concerns redefining the meaning of work. Going through career interruptions and reentry experiences, all women in this study redefined their meaning of work. Some imposed the meaning of self-actualization and self-development, and some came to focus on the monetary rewards. The meaning of experience changes progressively as adults develop cognitively (Blocher, 1980). The reentry experience is recalled by the participants as adding additional meaning to work.

Limitations

It would have been instructive to hear the voices of more women. However, within the time restraints allowed for this study, only six participants who met the criteria and who were willing to participate were identified. The participants lived in Seoul, the capital of Korea. A sample of other areas might yield its own rich set of descriptions on the reentry experiences of these women as these areas are considered to be more conservative and more patriarchal.

Credibility is a concern in qualitative research. It relates to internal validity and asks how confidence in the truth of the findings of a particular inquiry can be established (Lincoln & Guba, 1985). The senior author grew up in Korea, so she is well-equipped to understand the Korean cultural context. In addition, as she has also lived in the U.S. for six years, she is able to view the Korean cultural context with a third-eye perspective. Moreover, the one-time telephone interview might not have produced quite as full a description of the reentry women's experience in Korea, compared to live, in-person interviews.

Contributions of Research to HRD

The results of the current study will contribute to the understanding of the reentry experience of Korean women after career interruptions. This study provides a rich and in-depth description about reentry women's actual values, beliefs, or attitudes, from their own voices. This research provides several implications for professionals working with reentry women, such as career counselors, adult educators, and corporate human resource developers and managers.

First, career counselors working with reentry women will benefit from the results of the current study by helping them to locate appropriate jobs and meeting reentry women's unique career counseling needs. In Korea, there are few career counseling services intended for adult women. In most cases, reentry women in Korea make significant career decisions without professional career counseling or career information. When women stay at home, they are unlikely to access appropriate career counseling. Thus, career counseling service organizations should devote more energy to outreach into the community for potential reentry women in their homes.

Second, this study provides adult educators with in-depth understanding about their potential clients—reentry women intending to return to schools. Women who wish to reenter the workplace may need help in recognizing

which skills and knowledge are outdated. They may then be willing to update themselves to regain employability via vocational training or learning. Adult vocational educators can target this reentry women population and attract them by addressing their unique needs.

This study can also help corporate human resource developers and managers who want to make use of reentry women's skills and talent. By recognizing conditions that keep women from reentering the workplace, corporate HR developers and managers should try to create more flexible and egalitarian work environments in order to increase employee job satisfaction.

Finally, many potential reentry women in Korea can benefit from this study. Because of a lack of role models for reentry women in Korea, and because of differences in individual situations, this research may provide a foundation for understanding the common thread that links reentry women's workplace experiences. By understanding reentry women's experiences, women who dream of reentering the workplace can reevaluate and successfully carry out their career plans.

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Factors that Assist and Barriers that Hinder the Success of Diversity Initiatives in Multinational Corporations

Rose Mary Wentling
University of Illinois

The purpose of this study was to identify and provide information on the factors that assist and barriers that hinder the success of diversity initiatives in multinational corporations. Eight multinational corporations headquartered in the United States were selected for this study. Two methods of data collection were used: semi-structured face-to-face interviews, and document analysis.

Keywords: Diversity Initiatives, Multinational Corporations, Organizational Barriers

The populations of the United States and other countries around the world are becoming more diverse, causing organizations to become more diverse as well (Fernandez, 1993; Gilbert & Ivancevich, 2000; Norton & Fox, 1997). Demographers have reported that the workforce population will include an increased number of women, more minorities, varieties of ethnic backgrounds, more aging workers, and people with different life styles (Schraeder, 1999). People from many diverse groups will be working together to keep businesses running competitively throughout the world (Dutton, 1998). It is expected that the extent to which these demographic workforce shifts are effectively and efficiently managed will have an important impact on the competitive and economic outcome of organizations (Dass & Parker, 1996; Gasorek, 1998). Only companies that have cultures which support diversity will be able to retain the best talent necessary to remain competitive (Morosini, 1998).

Increases in competition and demographic changes have convinced many business leaders that diversity should be an essential part of their business strategy (Cox, 1993; Pollar, 1998). Demographic changes, the shift from a manufacturing based economy to a service economy, and global competition are some factors that have forced US corporations to reexamine their policies, programs, and practices to remain competitive. One of the most cited reports on the dramatic demographic changes in US society is *Workforce 2000: Work and Workers for the Twenty-First Century* (Johnston & Parker, 1987). This report and others (Judy & D'Amico, 1997; US Bureau of the Census, 1994; US Bureau of Labor Statistics, 1998) indicate that workforce demographics are expected to change dramatically. Managers who want their organizations to remain competitive are concerned about how to implement different initiatives and programs in order incorporate and retain diverse body of employees (Gasorek, 1998; Rosner, 1999).

There are numerous ways in which different individuals have defined diversity. Definitions of the term range from narrow to very broad. Narrow definitions tend to define diversity in terms of race, gender, and ethnicity (Kossek & Lobel, 1996). Broad definitions may also include age, national origin, religion, disability, sexual orientation, values, ethnic culture, education, language, life style, beliefs, physical appearance, and economic status (Norton & Fox, 1997). Each of these characteristics can affect an employee's attitudes and behaviors in the workplace, as well as influence their ability to work well with other employees. For the purpose of this study, diversity is defined as all the ways in which people differ, and it encompasses all the different characteristics that make one individual or group different from another. It is all-inclusive and recognizes everyone and every group as part of the diversity that should be valued (Hayles & Russell, 1997; Kossek & Lobel, 1996).

An important force influencing workforce diversity is the globalization of the marketplace. As global competition is increasingly becoming more important, it has become apparent that American competitiveness in the global marketplace will depend on effective human resource development and management (Fernandez, 1993; Poole, 1997). Wentling and Palma-Rivas (1998) interviewed diversity experts throughout the United States and found that the globalization of many American corporations has raised the need for a multicultural perspective to compete successfully abroad. These companies need to deal with diverse employees, customers, and suppliers around the world. Therefore, many companies are providing skills and cultural awareness training to help their employees be more knowledgeable, understanding, and sensitive to the differences which may exist between themselves and people from other countries. According to Fernandez (1993), US companies will continue to expand through acquisitions, mergers, the transfer of facilities overseas, and will be faced with increasing diversity in the workforce.

During the last decade, many organizations have responded to the increase in diversity with initiatives and

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programs designed to manage diversity in the workplace (Arredondo, 1996). For example, Cox (1993) identified work arrangements, education and training, career management, and mentoring relationships as specific diversity initiatives in American corporations. Morrison (1992) found diversity initiatives related to accountability, career development, and recruitment. Although there is a wide range of initiatives and strategies for managing diversity and organizations are scrambling to develop diversity programs, very little is known about factors that assist and barriers that hinder the success of diversity initiatives in multinational corporations (Fernandez, 1993: Florkowski, 1996; Hayles & Russell, 1997).

Purpose of Study

The purpose of this study was to investigate the factors that assist and barriers that hinder the success of diversity initiatives in multinational corporations. Diversity initiatives for the purpose of this study are defined as specific activities, programs, policies and any other formal processes or efforts designed for promoting organizational culture change related to diversity (Arredondo, 1996). This study examined the following major research questions:

1. What factors have assisted in the success of diversity initiatives in corporations?
2. What barriers have hindered the implementation of diversity initiatives in corporations?
3. What can be done to prevent failure of diversity initiatives in corporations?

Methodology

This was a descriptive and exploratory study. Two major methods of data collection were used: semi-structured face-to-face interviews and document analysis. Interviews were conducted with workforce diversity manager/directors who are responsible for diversity initiatives in multinational corporations headquartered in the United States. The data obtained through the interviews consisted of words in the form of rich verbal descriptions (qualitative data), as well as quantitative data. Essentially, this study used a qualitative approach to answer the research questions. A quantitative method in the form of frequencies and percentages were also used to support the qualitative data. The second major method of data collection used was document analysis. Documents related to the organizational diversity initiatives in the multinational corporations were collected from primary and secondary sources. Documents were solicited from the corporations and from standard literature sources, such as, annual reports, community relations reports, journals, magazines, world-wide-web, newspaper articles, research reports, and diversity-related books. The data obtained from these documents provided insightful and enriched information that was used to confirm and verify the information provided by the study participants during the face-to-face interviews.

The population for this study was composed of the 30 multinational corporations in a mid-west state in the US listed in the book entitled, *Directory of Diversity in Corporate America* (1994). From those 30 corporations, a sample of eight was randomly selected to participate in the study. The population and sample that was selected for this study was ideal because in order for a corporation to be included in the *Directory of Diversity in Corporate America* (1994), it must meet the following criteria: (a) have extensive experience with workforce diversity, (b) be multinational corporations, (c) be allocating resources to diversity initiatives, and (d) have launched successful corporate diversity initiatives.

The data were collected through interviews and document analysis. The researcher conducted face-to-face interviews with eight workforce diversity manager/directors in charge of diversity initiatives in eight multinational corporations in a mid-west state in the United States. The researcher developed a semi-structured interview guide to assist in collecting the data from the interviews. The interviews were conducted on-site at each participant's corporate office. All interviews were tape recorded and extensive notes were also taken during each interview. The interviews lasted from one and a half to three hours, with an overall average of two hours.

In addition, the researcher conducted a document analysis of written and printed materials related to the organizational diversity initiatives in the multinational corporations. These documents were solicited, collected, and included the most current corporate annual reports, newsletter articles, newspaper articles, and profiles from general business directories, research reports, journal articles, magazine articles, and chapters from diversity books.

The data from the interviews were content-analyzed. Content analysis is a research technique for systematically examining the content of communications--in this instance, the interview data. The researcher and a research associate independently analyzed the participants' responses and the related issues that arised during the interview process. No major discrepancies were found when the analyses from both researchers were compared. The researchers read the responses, put them together as complete quotations, and filed them according to the topic or

issue addressed. Responses were analyzed thematically. Emergent themes were ranked by their frequency of mention and finally categorized. Data obtained through the interviews were analyzed qualitatively and quantitatively. Quantitative data were used to provide the basic research evidence, while qualitative data were used to round out the picture and provide examples.

Documents were collected and analyzed prior to, during, and after the interviews. All together there was a total of 47 related documents analyzed. Related documents obtained from the world-wide-web, corporate sources, books, journals, newspapers, newsletters, reports, and so forth were all included in individual files for each of the corporations in the study. The researcher coded the related documents by relevant topic as they related to the major research questions. To further assist in ensuring the reliability of the data analysis, the researcher invited a diversity manager from a multinational corporation in the west coast to review four of the interviews. The ratings (frequencies of emergent themes) of the diversity manager matched the researcher's ratings in all of the four interviews reviewed. The same procedure was followed for the related documents analysis, which produced similar results.

Results

The results of this study are summarized in three major sections that parallel the research questions: (a) Factors that assist in the success of diversity initiatives in multinational corporations, (b) Barriers that hinder the success of diversity initiatives in multinational corporations; and (c) Preventing failure of diversity initiatives in multinational corporations.

Factors Assisting in the Success of Diversity Initiatives

The first major research question in the study attempted to identify the factors assisting in the success of diversity initiatives. To analyze the data on the factors assisting in the success of diversity initiatives, the researcher developed three categories based on what the study participants stated. Factors identified were classified under the following three categories: (a) diversity department, (b) human, and (c) work environment. Factors identified in each of the categories were ranked-ordered according to the frequency of mention by the study participants. The categories are described as follows:

Diversity Department Factors Assisting in the Success of Diversity Initiatives. The study participants cited a variety of factors assisting in the success of diversity initiatives, which the researcher assembled under the category of diversity department. This category had the largest number of factors and also some of the most frequently mentioned. These specific factors fell under the diversity department's responsibility for success. The three most frequently mentioned factors under this category were: (a) have a strategic plan for diversity initiatives, 8 (100%); (b) integrate diversity initiatives into the corporate goals and priorities 8 (100%); (c) implement several initiatives simultaneously, 7 (88%).

The importance of having a strategic plan for the success of diversity initiatives was recognized by all the study participants. They all agreed that strategic planning is an important factor that leads to the success of diversity initiatives because it provides guidance, makes them reactive, and avoids shortsightedness. Since strategic planning emphasizes long-term initiatives, it avoids the danger of having "one-shot" diversity initiatives that are likely to disappear with time. In other words, strategic planning does not allow diversity initiatives to become a fad. Having a diversity strategic plan was also recognized as a primary responsibility of the diversity department or function.

Another factor considered highly influential in the success of diversity initiatives is the integration of diversity initiatives into the corporation's goals and priorities, or the linkage of the diversity initiatives to the corporate strategic plan. All the study participants agreed that diversity initiatives should be integrated in the strategic goals and priorities of corporations. This is also a responsibility of the diversity department or diversity function. If managers and employees in an organization clearly see the relationship between the diversity initiatives and the corporation goals, this can demonstrate that diversity is important and unlikely to fade away. This can also lead people to become supportive, and management to become committed to the initiatives.

Eighty-eight percent of the study participants agreed that in order for diversity initiatives to be successful, diversity departments have to coordinate several initiatives simultaneously. To implement a single initiative is perceived as negative and not likely to be successful. Study participants stated that "diversity initiatives should not stand alone and should be connected to the diversity business case." Some diversity initiatives are perceived as very important but "not a solution in itself." One of the research participants stated, "I think that diversity initiatives

really do work, but they do not stand alone. If you implement just one initiative, you are not going to get the rest of what needs to happen; meaning, you don't have the good foundation in place."

Human Factors Assisting in the Success of Diversity Initiatives. Many factors assisting in the success of diversity initiatives were identified for the category of human factors. The three most frequently mentioned factors under this category were: (a) recognition that diversity is a business imperative 8 (100%); (b) acknowledgment of the benefits of diversity, 7 (88%); (c) people personally committed, 5 (63%).

In order for diversity initiatives to be successful, there must be recognition that diversity is a business imperative. This factor was recognized as a driver of success by all the study participants. Managers and employees alike need to recognize that diversity is a business imperative. One study participant stated, "Diversity initiatives have been successful for us because we have been able to make diversity a business case, a business imperative." Another study participant said, "Recognition by many people in the organization that diversity is a compelling business issue has led us to have successful diversity initiatives." Acknowledging the benefits that diversity brings to corporations, managers, and employees was another factor identified as a driver of success for diversity initiatives by eighty-eight percent of the study participants.

Another human factor associated with the success of diversity initiatives is to have people personally committed to diversity. This factor was recognized as a promoter of success by sixty-three percent of the study participants. The following was stated by one of the participants regarding this aspect, "I think what has been very successful is the energy and the commitment you get from people in the organization. We have people that at different levels wanted to be involved because they are really committed and recognize the importance of respect and inclusion. Because they are committed, they can also connect diversity with its impact on teams, and also can understand how important it is for an organization to utilize everybody. We have people functioning as champions in the workplace and they are really trying to raise issues around diversity whenever they can, and that I think it has been really successful."

Work Environment Factors Assisting in the Success of Diversity Initiatives. Many factors were cited by the study participants under the category of organizational factors. The three most frequently mentioned factors under this category were: (a) have a culture that values diversity, 8 (100%); (b) top management support, endorsement, and commitment, 8 (100%); (c) recognizing that diversity is more than an HR issue, 6 (75%).

All the study participants identified having a culture that values and supports diversity as the most important factor leading to the success of diversity initiatives. One study participant stated, "Our diversity initiatives have been successful because we have a culture that fully supports diversity. Diversity is part of the culture from the highest to the very bottom levels. The value of diversity is something that is communicated throughout the entire organization just as any other business strategy, such as quality management."

All of the research participants also identified top management support as one of the most important factors driving the success of diversity initiatives. According to the study participants the most influential factor that has assisted in the success of diversity initiatives is the commitment and support of top management. One study participant indicated, They (senior management) firmly support the diversity initiatives. We started off with top leadership and pushed it down. Much effort is going on at the senior level of this company. Success is because we have commitment from the executive group in the organization."

Seventy-five percent the study participants also agreed that in order for diversity initiatives to be successful, the top executives and everyone in a corporation should recognize that diversity is a business imperative or a business advantage and much more than an HR issue. Recognizing the advantages that diversity management brings to organizations and individuals can be a strong factor leading to the success of diversity initiatives. One reason is that people's understanding can make the implementation and development processes easy. Another reason is that if people in corporations understand the value of diversity, they can become more receptive and willing to participate.

For some study participants it was difficult to identify major factors assisting in the success of diversity initiatives. For them, various factors complemented each other in supporting successful diversity initiatives. The ideal, for them, would be to have all the factors described above working together to ensure the success of diversity initiatives. The rationale for not mentioning specific factors was that they depended on each other to make diversity initiatives effective. For the study participants who perceived the combination of factors as leading to success, all factors were very important, but success depended on a combined approach. For example, just one factor, such as management commitment, in itself will not lead to success, it has to be complemented by other factors as well.

Barriers to Diversity Initiatives

The second major research question in the study addressed the barriers that have hindered the diversity initiatives in the corporations. The study participants were asked to identify the barriers that have hindered the diversity initiatives in their corporations. To analyze the data, the researcher developed three categories based on the barriers cited by the study participants. Barriers identified were classified under the following categories: (a) Barriers of the work environment; (b) Barriers of people in corporations; and (c)Barriers of diversity initiatives. Barriers identified in each of the categories were ranked-ordered according to the frequency of mention in the interviews. The categories are described below.

Barriers of the Work Environment. The study participants cited many major barriers that the researcher categorized under the category of barriers coming from within the corporations' work environments. The three most frequently mentioned barriers under this category were: (a) competing agendas, 6 (75%); (b) size and complexity of the corporation, 6 (75%); and (c) economic changes, 4 (50%).

Having competing agendas is a corporate barrier that was identified by seventy-five percent of the study participants. These corporations are engaged in many additional projects other than diversity, and all of them are perceived as important by the leaders of their corporations. Most of them are engaged in total quality management, process improvement, strategic planning, team development, and many other types of organizational development interventions. They all require time and resources. Therefore, financial support, human resources, and time have become very scarce for managers and employees. One of the study participants stated that, "There is a constant struggling to get the most urgent done. People set their priorities and diversity issues are left behind because they are easier to put off."

Seventy-five percent of the study participants identified the size and complexity of the corporations as a big barrier hindering the development of diversity initiatives. All the corporations studied are very large with a number of divisions and branches inside and outside the United States. The complexity of their operations and their sizes make it difficult to effectively coordinate the overall process of diversity initiatives. Corporations' large number of units, branches, sub-cultures, and locations are barriers that do not allow diversity initiatives to be implemented easily. The importance each corporate unit gives to diversity also varies. This also leads some units or branches to adapt changes at differing speeds. Size of the organizations was also seen as a barrier because it interferes with conveying the diversity message to many people in a limited amount of time. In addition, corporate size makes it difficult to come to decisions and agreements in a reasonable time frame.

Half of the study participants identified changes in the economy of the corporations as an important barrier hindering the progress of diversity initiatives. These economic changes have forced corporations to decrease financial resources and to reduce the number of people working in corporations, causing excessive overload work schedules. Due to economic changes, corporations have less resources in general. Economic changes have led corporations to reduce, downsize, and flatten. This means that corporations have to function with fewer people, which, in turn, brings more pressure and overload work schedules for everyone in the organizations. Unfortunately, this leads to lack of time and financial resources to devote to diversity initiatives.

Barriers of People in Corporations. The study participants cited a variety of barriers that the researcher categorized under the category of barriers of people in corporations. The three most frequently mentioned barriers under this category were: (a) people not understanding the value of diversity, 7 (88%), (b) people not fully supporting diversity, 6 (75%); and (c) slow involvement, 4 (50%).

The most frequently mentioned barrier was people not understanding the value of diversity. Eighty-eight percent of the study participants cited this as a major barrier. The following phrases are evidence of this barrier: people not understanding why diversity is important; people not seeing its value; lack of awareness of the value of diversity; people not knowing what to expect; people not understanding what impact diversity has on them personally; people with myopic thinking; lack of visionary people; and people not seeing the true value of diversity.

Not having full support for diversity initiatives was mentioned as another barrier by seventy-five percent of the study participants. Not understanding the value of diversity and what it means for corporations and individuals can lead to this lack of support. However, some people may understand what diversity is and its value and still not

support it. The most serious barrier in this context is when leaders in companies do not fully support diversity. One of the study participants put it this way: "I don't have, nor do I expect complete buy in. We actually do not have total support from everybody in the corporation. However, the person who was the most important for the diversity strategy to work was the CEO."

Half of the study participants identified slow involvement as a barrier. One of the participants described this barrier in the following way: "Some groups of people are much slower in reacting to change than others. That is a barrier that we encounter within the organization. If you have six business units, and two of them are slower than the others in implementing the diversity initiatives, people do observe and that is a double edged sword. It is especially negative when the slower ones represent business units with significant size."
Leaders being slow in implementing their diversity initiatives can create other obstacles, such as people within the business units complaining, missing work, becoming dissatisfied, and quitting and leaving the company.

Barriers of Diversity Initiatives. The study participants identified several barriers that the researcher categorized under barriers of diversity initiatives. The three barriers most frequently mentioned under this category were: (a) difficult to evaluate, 6 (75%); (b) difficult to show return-on-investment, 4 (50%); and (c) organizational policies interfering with diversity initiatives, 4 (50%).

Seventy-five of the study participants identified the difficulty to evaluate diversity initiatives as a barrier. According to the study participants, diversity initiatives are difficult to evaluate because many of them are long-term and cannot demonstrate their impact and effectiveness as easily as other types of business initiatives. Half of the study participants identified the difficulty of diversity initiatives to show return-on-investments as a barrier. According to the study participants diversity initiatives may take a long time to show their impact; therefore, it is difficult to measure the financial gain that may have resulted from the money invested on them. They also indicated that it was very difficult to develop methods for measuring the profitability gain that resulted from the money invested in diversity initiatives. Half of the study participants identified organizational policies interfering with diversity initiatives as a barrier. Participants indicated that out-dated organizational polices often do not accommodate the changes taking place in the diverse workplace and may not allow the proper implementation of the diversity initiatives. Participants stated that companies need to revise organizational policies and procedures that support diversity and help the organizational culture continually adapt in response to the changing workforce.

Preventing Failure of Diversity Initiatives

The third major research question in the study addressed what can be done to prevent failure of diversity initiatives. After having identified the barriers that have hindered the progress of diversity initiatives, the study participants were asked to provide information on what they have done to prevent failure of diversity initiatives. The six most frequently mentioned ways that were identified by the study participants were: (a) obtain top management commitment, 7 (88%); (b) treat diversity as a business issue, 6 (75%); (c) conduct diversity initiative planning, 5 (63%); (d) provide diversity training and education, 4 (5%); (e) communicate the value of diversity, 4 (50%); and (f) approach diversity as branches, units or corporations are being created, 3 (38%).

Eighty-eight percent of the study participants indicated that top management commitment was a way to avoid failure of diversity initiatives. Having top management support was seen as a way to prevent many of the corporate and people barriers. For example, a study participant stated, "Having executive leadership support makes a big difference. Having their participation and visual commitment helps avoid failures, such as implementation of policies that can hinder the development of diversity initiatives."

Seventy-five percent of the study participants reported that, to prevent failure, diversity initiatives had to be considered a serious business issue. This meant that diversity initiatives had to be connected to the corporate business strategy. When diversity initiatives were treated as business strategies, then corporate barriers such as competing agendas and economic changes were more likely to be eliminated.

Sixty-three percent of the study participants identified planning as an effective way to prevent failure. According to the study participants it took much time and effort to develop effective diversity plans that were flexible, easy to understand, and linked to corporate strategic plans. Half of the study participants indicated that diversity training and education played an important role in avoiding potential failure of other diversity initiatives. Training and education was considered an effective tool to assist in removing barriers such as people not understanding the value of diversity, slow involvement, resistance to change and unwillingness to participate. Diversity training was a way to communicate the

importance of diversity and its impact on the organization. Communicating the value of diversity was reported by half of the study participants, as a way of preventing failure of diversity initiatives.

Thirty-eight percent of the study participants stated that an effective way to prevent failure and ensure success is by introducing diversity management as units, branches, or corporations are being created, formed, or transformed. One of the study participants put it this way: "The good news is that we are creating a new company. What we are doing at this point is addressing diversity as we are creating this new company, as opposed to going back and trying to change an organizational culture that has already been established. It is the most opportune time to be involved in diversity. Diversity is part of the three new policies and foundations that we are going to operate under. When diversity is integrated into the culture of an organization from the very beginning, people look at it through different eyes, which is really great."

Discussion

This study revealed that a wide range of barriers are likely to hinder the success of diversity initiatives in multinational corporations. The findings of this study indicate that, unfortunately, diversity initiatives are not free from barriers that hinder their progress. Barriers come in different forms and they may appear at any time during the developmental process of diversity initiative--that is planning, implementation, and evaluation. This study specifically found sources of barriers. Barriers to diversity initiatives come from the work environment, people, and even from the diversity initiatives themselves. Diversity leaders, human resource development professionals, managers and anyone else who supports diversity initiatives in corporations should be aware of the specific barriers to diversity initiatives and their sources so that they can be prevented from blocking the successful development and implementation of diversity initiatives. Although the specific barriers to diversity initiatives vary from organization to organization, their effect is the same in the sense that they are detrimental to the progress of diversity initiatives.

Diversity initiative planning was identified as an important way of preventing failure of diversity initiatives in corporation. The importance that planning is essential for having successful diversity initiatives has been reported by many authors (Arredondo, 1996; Poole, 1997). Arredondo (1996) stated that not having a plan may be perceived as giving less value to the diversity initiatives. Corporations that engage in diversity initiative planning show that they take diversity initiatives very seriously because they can then develop well-thought diversity strategic plans.

Furthermore this study revealed the factors that assist in the success of diversity initiatives in multinational corporations. Having a strategic plan for diversity initiatives, senior management commitment and support, diversity linked with strategic business plan, recognizing that diversity is a business imperative, and having an organizational culture that values diversity were all identified as important factors that assist in the success of diversity initiatives in multinational corporations. To be able to implement effective diversity initiatives, HRD professionals and other corporate leaders will need to have a global mindset. According to Florkowski (1996), having a global mindset means that business leaders find creativity in diversity; value diversity that is accomplished though their personal, professional, and organizational objectives; and promote a culture that supports inclusiveness. This global mindset is important when implementing effective diversity initiatives that increase the diversity of employees, products, markets throughout the world, and achieve a competitive advantage.

Diversity training and education was identified as playing an important role in avoiding potential failure of other diversity initiatives. Training and education was considered an effective tool to assist in removing barriers such as people not understanding the value of diversity, slow involvement, resistance to change and unwillingness to participate.Diversity training was a way to communicate the importance of diversity and its impact on the organization. Although organizations are using a broad range of initiatives in their efforts to manage diversity, training is widely used strategies in effectively managing diversity in the workplace (Baytos, 1995; Martino, 1999). Florkowski (1996) found that training and education are considered the most effective international diversity initiative used by multinational corporations. They also found that training as an international diversity initiatives is a growing concern for organizations operating in international settings. Similarly, Littlefield (1995) reported that representatives of over 50 countries identified diversity training as a key intervention to solve diversity problems .

The results of this study seem to indicate that many challenges lay ahead in managing diversity successfully. It seems vitally important for diversity leaders and human resource development professionals to find mechanisms and strategies by which to identify and understand barriers that hinder the success of diversity initiatives on a on-going basis. Diversity leaders and human resource development professionals also need to show their level of commitment to diversity by developing short and long-term strategies to address diversity issues in substantive ways. However,

such change and transformation within organizations is difficult and leadership at all levels must be involved in the process (Johnson, 1996).

Determining the specific barrier that hinder the successful implementation of diversity initiatives in corporations is one of the first step in developing strategies and initiatives that remove barriers and assist and support the success of diversity initiatives. Barriers that hinder the success of diversity initiatives prevents organizations from developing the full potential of their workforce, which they greatly need today, as they face worldwide competition.

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Developing Organizational Awareness: Gaining a Distributed View of Organization-Level Change in Workforce Diversity Awareness

Martin B. Kormanik
O.D. Systems, Inc.

Despite the prevalence of diversity programs, few measures have been identified for assessing their effects. This study shows that using the cycle of awareness development (CAD) model to examine individual employees' awareness development regarding workforce diversity may serve as a measure for assessing organization-level outcome. Implications for theory and practice are discussed, along with suggestions for further research.

Keywords: Organizational Change, Awareness Development, Diversity

The work environment has experienced wrenching change in recent years. One factor that has been a compelling force for organizational change is workforce diversity. Studies of U.S. demographic changes indicate that the American workforce will continue to grow more diverse (Tsui & Gutek 1999). Lifestyle and societal attitude changes that impact the workplace are occurring at such a rapid pace that they are difficult to manage (Ingrassia, 1993). The "increasing awareness of how our melting pot society affects business has increased the demand for diversity" programs to help organizations deal with change (Caudron, 1993, p. 51).

Diversity Programs in Contemporary Organizations

As of 1997, approximately one-third of the 500 largest companies in the United States (U.S.) had developed programs addressing workforce diversity, and another one-third had programs in the planning stages (Blackmon, 1997). The primary objective for diversity programs is enhanced organizational, work group, and individual effectiveness (Lobel, 1999). Diversity programs are expected to impact attitudes, individual and team performance, human resource management, and strategic organizational goals.

Diversity programs frequently use a systems approach, initiated by some sort of organizational culture audit addressing the organization's informal culture, policies, and management practices (Wilson, 1997). This serves as an organizational needs assessment, establishing a measure of the current status of the organization. From this baseline, management develops a comprehensive diversity strategy, including: the vision/mission for the diversity effort; specific objectives the effort is to achieve; specific initiatives to undertake in support of the diversity vision; and, a plan for implementation. Part of any diversity program strategy is the expectation for continuous improvement, requiring constant assessment of progress on diversity program objectives. The diversity program strategy should include an annual or follow-on cultural audit, demonstrating the extent that change has occurred, or is occurring, around the management of workforce diversity.

Some diversity programs focus primarily on race and gender, while others include the broad spectrum of diversity factors such as age, socio-economic status, and occupational differences (Tsui & Gutek 1999). The majority of diversity awareness training programs focus on appropriate workplace behaviors, emphasizing sensitivity and understanding of difference. Increasingly, diversity programs look beyond legislating employee behaviors to changing attitudes. Fundamentally, any diversity program must create awareness of workforce diversity, its impact on the workplace, and its impact on the organization's bottom-line (Wilson, 1997).

Problem Statement

Measuring progress in accomplishing the desired outcomes is critical to diversity program effectiveness and longevity (Lobel,1999; Wilson, 1997). Tsui and Gutek (1999) focus on two broad categories of desired diversity program outcomes: *task* and *social*. Although assessing program outcomes has consistently been an area of focus, the lack of appropriate diagnostic tools and measures for assessing program outcomes is problematic. Commonly used measures focus on *task* outcomes such as organizational performance (e.g., increased profit, fewer customer complaints) and demographic indicators (e.g., increased representation of underrepresented groups, reduced turnover). There is a need for additional measures for assessing the efficacy of diversity programs regarding *social* outcome dimensions, such as increased awareness or awareness development.

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The cycle of awareness development (CAD) model is helpful for analyzing awareness development regarding a transitional issue, understanding differences in reaction to the same transitional issue, and planning interventions that support awareness development through the cycle (Kormanik, 1999). The effective management of workforce diversity is one such transitional issue. Kormanik and Sturdevant (2001) demonstrate the practical utility of using the CAD model for analyzing change at the organizational level by showing that the examination of individual employees' awareness development around the transition issue of planned organizational change provides a distributed view of organizational-level awareness development. The purpose of this paper is to demonstrate the practical utility of using the CAD model to take a distributed view of organization-level awareness of workforce diversity issues and assess the change in awareness over time (i.e., social outcome). Data collection and analysis from a diversity training initiative provides empirical evidence.

Research Question

Two research questions guide the study: What is the practical utility of using the CAD model for analyzing the level of awareness of workforce diversity issues at both the individual and organizational levels? Can longitudinal analysis using the CAD model provide a social outcome measure of diversity program effectiveness through a distributed view of organizational change in awareness of workforce diversity issues?

Theoretical Framework

Awareness development is a construct for describing the changes that occur in an individual as he or she goes through life transitions (Kormanik, 1999). The transitional issue inducing awareness development may be anticipated (e.g., marriage) or unanticipated (e.g., job layoff). It may be positive (e.g., adopting a child, starting a new job) or negative (e.g., death of a loved one). Regardless of the issue, the transitional change and its associated awareness development is an integral part of every adult's experience, yielding cognitive, psychosocial, and behavioral effects. Kormanik describes the CAD as a five-stage model drawing from multiple disciplines, including adult development and learning. The model is helpful in the analysis of an individual's awareness development in relation to a transitional issue, understanding variance in different individual's reaction to the same transitional issue, and planning interventions that support an individual's awareness development through the cycle.

Through the course of any organization's existence it also experiences transitional issues that effect development and learning. Bridges (1991) describes an organizational transition as "the psychological process people go through to come to terms with the new situation" (p.3). Transitional issues include planned change initiatives (e.g., reorganization) as well as unanticipated events (e.g., workplace violence). The issue may be obvious and discrete (e.g., merger with another organization) or subtle and chronic (e.g., process improvement). As with individuals, the CAD model may be helpful for analyzing organizational awareness of the transitional issue, understanding changes in reaction to the issue, and planning organizational interventions that support awareness development.

Application of the process of awareness development at the organizational level emerges from the concept of organizations as social systems (Parsons, 1951), where making meaning tends to be done through the social interaction of individuals (Mezirow, 1985). Awareness development parallels the process of making meaning, with the process yielding cognitive, psychosocial, and behavioral effects. The management literature provides examples specifically linking the individual and organizational levels of analysis. Robbins (2000) makes a fundamental case by defining organizational behavior as the study of individuals' attitudes and actions so as to understand, predict, and control individuals' behaviors in the organizational context. Huber (1991) provides a thorough discussion of the contributing processes and the literatures linking adult learning theory with organizational learning. In particular, Callahan (2000) demonstrates a linkage similar to that described in this paper in a study using emotion work actions by individuals to take a distributed view of organization-level phenomena.

Awareness Development as a Construct

Awareness development is grounded in the adult development and psychology literature, particularly life transitions (Kormanik, 1999). Life transitions occur when "an event or non-event results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behavior and relationships" (Schlossberg, 1981, p. 5). Two individuals confronted by a transitional issue will likely differ in their perception of the issue based on their perspective or meaning schema (Schon, 1987). Central to the construct of awareness development is

change in perspective or meaning schema. Awareness development reflects making new meaning or sense out of the transition experience because old mental models no longer apply.

Awareness development comes from knowledge of (i.e., cognitive learning) and experience with (i.e., change) a transitional issue. Depending on the specific issue, however, some individuals may progress rapidly in their awareness development and some might stagnate at an early stage. Schlossberg (1981) shows a life transition as a form of crisis and the concept of adaptation to the crisis is central to the transitions' theoretical framework. "Every crisis presents both an opportunity for psychological growth and a danger of psychological deterioration" (Moos & Tsu, 1976, p. 13). Unless the crisis issue is addressed, awareness development may stagnate. Growth may be impeded. Deterioration may result.

The CAD model helps describe the transitional change process of awareness development through five stages: pre-encounter, intellectualization, encounter, empowerment, and integration. The cycle repeats for each transitional issue. Individuals generally progress through the stages of awareness in sequence, but progression may vary substantially from individual to individual even when both are confronted with the same transitional issue. Movement to the fifth stage in the CAD model does not mean the individual's cognitive and psychosocial development are complete. The process of awareness development is not static. It is a dynamic, repeating cycle. The individual will remain at integration only until the next issue comes along. The individual may have already reentered the CAD model around another transitional issue. The ideal is that progression through successive iterations would benefit from the cognitive and psychosocial effects gained in earlier awareness development cycles.

The construct of awareness development is grounded in *both* change and learning. Organizational learning means "acquiring, sustaining, or changing of intersubjective meanings through the artificial vehicles of their expression and transmission and the collective actions of the group" (Cook & Yanow, 1996, p. 449). Huber (1991) qualifies that behaviors do not have to change to have organizational learning. Instead, a change in the *range of potential* behaviors represents learning. There is also much debate in the literature distinguishing between individual and organizational learning. The author adopts Schwandt and Marquardt's (2000) distinction that organizational learning is different than the sum of individual learning, given this study's focus on both individual and organizational levels in the application of the CAD model.

Five Stages of the CAD Model

When the individual has no cognitive, affective, or behavioral experience with the transitional issue, the individual is at the pre-encounter stage of awareness development. The individual has no attitude or perception of the issue in terms of self or others. The individual has not actually experienced it or recognized it in relation to others. From an epistemological perspective, the issue is not a part of the individual's world view. Given this stage of development, the individual would not be cognizant of the transitional issue even though it may be quite evident to others. An organization in the pre-encounter stage similarly has no awareness of, or experience with, the transitional issue.

Cognitive development starts as the individual's situation begins reflecting the issue. He or she moves from the pre-encounter stage into intellectualization, the second stage of awareness development. The individual begins to recognize the issue, yet there is little or no emotional involvement. The individual in the intellectualization stage spends a great deal of time on mental gymnastics, repeating a pattern of single loop learning and enjoying the intellectual discourse on an issue that does not really affect them. Argyris' (1982) description of single loop learning focuses on cognitive development using existing routines and mental models, causing self-reinforcing patterns rather than developing new solutions for presenting issues. Single-loop learning also plays out at the organizational level, in tandem with first-order organizational change. "First-order change is incremental and convergent. It helps firms maintain reliability; it may involve adjustments in systems, processes, or structures, but it does not involve fundamental change" (Newman, 2000, p. 604). Existing mental schema and organizational routines remain unchallenged. This echoes Cook and Yannow's (1996) view of change without learning. Organizational inertia impedes development (Newman, 2000). The intellectualization stage is evident in the rational cognitive approach to organizational learning. Intellectualization at the organization level reflects Huber's (1991) stipulation that gaining knowledge does not necessarily imply learning.

Encounter, the third stage of awareness development, begins when the individual has the primary experience with the issue. This may be sudden, due to a critical incident, or it might be a gradual slide after an extended, low-level exposure to the issue. The individual in the encounter stage has total and extended immersion in the issues, resulting in intense emotional involvement. The individual often perceives his or her social power has been threatened, eroded, or taken away. The feeling of powerlessness and loss of control are paramount in the "rage stage" or "valley of despair" of the encounter stage of awareness development. Gurin and Brim (1984) suggest the need for control is basic to self and describe research showing depressed individuals as hyper-realistic about their

lack of personal efficacy. Personal efficacy means "judging the self as capable, as a person able to produce acts that should lead to desirable outcomes" (p. 283). Individuals in the encounter stage perceive their capability is substantially diminished, with the total immersion in the transitional issue creating a blindness that inhibits further progression in awareness development and growth. Similarly, the organization might move into the encounter stage due to a crisis or critical incident, or it might slide into the encounter stage due to performance below aspiration level. In both instances, the encounter stage of the CAD model represents a substantial restraining factor (Lewin, 1951), impeding organizational growth and development.

The fourth stage of awareness development is empowerment. This stage includes seeking and finding strategies for securing enough power to make necessary changes while managing risks. The empowerment stage requires reflection, where negative judgment is suspended. The individual begins to use his or her discretion in a more rational manner. During the empowerment stage, the feelings of powerlessness and loss of control generated during the encounter stage are reconciled. Individuals begin to recognize the extent of power they have within their span of control and, even if that power is limited, use that power to regain a sense of control. A critical aspect of the empowerment stage involves enlisting the aid of others through the development and maintenance of support systems (e.g., mentors, confidants, networks). The feedback learning loop that support systems provide fulfills the need for coaching the individual in the empowerment stage. Feedback as a strategy to use in the empowerment stage requires a discourse or dialogue. It serves as the making-meaning piece, enabling the individual to move beyond the frustration, anger, and misperception of the encounter stage. Mezirow (1985) suggests making meaning tends to be done socially. Gurin and Brim (1984) identify "attention and processing of social information as the first step in change" (p. 312). For the organization, Kram (1988) notes the importance of workplace social systems for supporting individual development and reconnecting an individual, such as one experiencing the isolation of the encounter stage.

Integration, the fifth stage of awareness development, represents "being whole." The individual has regained his or her sense of control. The effects of the issue that precipitated the encounter stage dissipate. The individual knows "what" they do and "why" they do it as a result of the cognitive and psychosocial development during the preceding stages. The individual is capable of helping himself or herself, as well as others, be effective and successful in their coping and adaptation efforts. For the individual, the cognitive and psychosocial development represented by moving through the empowerment stage into the integration stage represents the growth piece. As the individual moves into the integration stage, he or she has in place new and more effective ways to resolve or at least cope with the issue that precipitated the encounter stage. In the integration stage there is practical application of strategies for moving beyond the crisis of the encounter stage. Sternberg (1985) defines pragmatic intelligence that emphasizes experience and real-world context, where problem solving in everyday life occurs naturally. Awareness development through the integration stage is also similar to the double loop learning suggested by Argyris (1982). Perspective transformation is a fundamental change in the way the individual views the world (Mezirow, 1985; Schon 1987). Movement to the integration stage around a particular transitional issue embodies the concept of perspective transformation. The integration stage at the organization level represents ongoing adaptive organizational change (Brown & Eisenhardt, 1998) and organizational transformation (Newman, 2000), where awareness development leaves the organization better able to compete in its changing environment. Strategies put in place during the empowerment stage enable the integration stage focus on second-order learning (Lant & Mezias, 1996) or double-loop learning (Argyris & Schon, 1978) involving the search for new routines and schemas. Argyris and Schon suggest double-loop learning is most likely when existing routines become ineffective or when new information cannot be understood within the currently accepted schema. A consistent overarching theme has been the movement toward organizational learning to promote successful navigation of change (Schwandt & Marquardt, 2000). Second-order learning facilitates second-order organizational change (Newman, 2000).

Methods

Empirical application of the CAD model at the organizational level was demonstrated through study of a single entity bounded by time and activity. The site was a U.S. Government agency with a technical mission. Personnel included engineers, technologists, and tradesmen, along with administrative and clerical support employees. As part of the organization's diversity program, it undertook a training initiative focused on increasing diversity awareness and skills-building for effectively working with and through others, in an increasingly diverse workforce. The multi-day training was mandatory for all employees, including managers, supervisors, and nonsupervisory personnel. The organization conducted 43 training sessions between December 1994 and February 1997, with 886 employees participating in the training. To maximize diversity, each training session included a representative mix of employment levels and occupations, as well as other demographic diversity factors, such as race and gender.

The fieldwork for this study was completed in conjunction with the training initiative. Subjects were the training participants. As part of each training session, the trainers provided an overview of the CAD model, applying it to workplace issues. Quantitative data came from a survey instrument included in the training materials asking each participant to identify where he or she perceived the organization in its awareness development of workforce diversity issues and where each participant perceived his or her own individual awareness development around workforce diversity issues. After the overview, each participant completed the instrument during the training. Frequencies for response sets from all participants were tabulated using statistical software. Additionally, analysis of variance (ANOVA) was conducted to compare the means between the first three and last three training sessions. Qualitative data augmenting the quantitative data came from participants' discussion of the agency's awareness development around diversity, as compared to their own individual awareness development. Qualitative data also came from conversations with the Diversity Program Manager, the organization's Board of Directors, and the employees' Workforce Effectiveness Advisory Council. The qualitative data included first-hand observations from the author's meetings and telephone conversations with agency representatives. Other data came from the organization's strategic business plan, diversity program plan, internal memoranda, and related documents.

Limitations

This study is limited in several ways. It is an analysis of one organization. The self-reported data came from asking members of the organization about their perceptions. Although the responses were anonymous, the survey instrument was completed as part of a mandatory training initiative. This study did not take into consideration the organization's other previous and concurrent diversity program initiatives. There were no assumptions about the benefits of workforce diversity programs, or workforce diversity itself. There was no attempt to evaluate the agency's diversity program. Lastly, although organizational diversity programs are often multi-focused, with initiatives on career development and planning, employee involvement, legal and governmental mandates, culture change, organizational and interpersonal communication, training and education, and community outreach (Lobel, 1999), there is no distinction among discrete diversity program initiatives.

Results

Usable data was obtained from 837 subjects. In relation to the first research question regarding the practical utility of using the CAD model for analyzing the level of awareness of workforce diversity issues, participants recognized that the organization exhibits all levels of awareness development around the issue of workforce diversity. Participant responses indicate that in some regards the agency does not understand the need for managing diversity (i.e., pre-encounter); that the majority of the agency "talks a good game" but really isn't serious about addressing workforce diversity issues (i.e., intellectualization); that in many regards the organization is struggling in encounter around the impact of workforce diversity; that in some instances the agency is trying to develop strategies for adapting and coping with diversity (i.e., empowerment); and, that in a few ways the agency is effectively managing workforce diversity without any problem (i.e., integration). Frequencies for responses are shown in Table 1.

Table 1. *Frequencies of participants' responses in the CAD analysis of workforce diversity.*

Stage of Awareness	Organizational	Individual
Pre-encounter	2.0% (16)*	1.0% (12)
Intellectualization	35.0% (289)	17.0% (144)
Encounter	28.0% (236)	24.0% (199)
Empowerment	33.0% (279)	46.0% (383)
Integration	2.0% (17)	12.0% (99)

* Percentages do not total 100% because some respondents identified more than one stage.

Participants also recognized that agency employees exhibit all levels of awareness development around workforce diversity. Participant responses indicate that there are those who are not aware of workforce diversity issues; those who can intellectualize and understand workforce diversity issues on an impersonal level; those who are struggling in their personal encounter with workforce diversity; those who are developing strategies for adaptation and coping with workforce diversity; and, those who have developed their awareness level to where they can deal effectively with workforce diversity. Participants perceived themselves as further along in their own awareness development than they perceived the organization. This finding was consistent with Kormanik and Sturdevant's (2001) findings on awareness development around the transitional issue of planned workplace change.

Regarding the second research question, longitudinal analysis using the CAD model provided a measure of diversity program social outcome through a distributed view of organizational-level change in awareness of workforce diversity issues. Although not statistically significant, ANOVA comparison between the data from the first three and last three training sessions showed a discrete overall shift in the means for each level of analysis. The data indicate that individuals and the total organization moved through the CAD; there was change in awareness development around workforce diversity. This finding also echoes Kormanik and Sturdevant's (2001) findings, yet the findings differ in the stage of awareness development. The majority of participants in this study saw themselves individually at the empowerment stage regarding workforce diversity awareness development (46%) and placed the majority of the organization at the intellectualization stage (35%). Kormanik and Sturdevant's (2001 findings show the majority of participants saw themselves at the integration stage around the issue of planned organizational change (48%), yet placed the majority of the organization at the encounter stage (37%).

Conclusions

Diversity initiatives in the workplace take careful forethought, and with a similarly thoughtful implementation yield positive results when there is organizational commitment and awareness of the impact of diversity. Identifying organizational needs, choosing a diversity strategy that includes rather than alienates employees, and integrating diversity into the business strategy are key steps in making sure that any diversity program starts off on the road to success. Commitment to diversity programs, however, is wavering (Lobel, 1999). Identification of adequate measures for assessing the task and social outcomes of diversity programs is essential. Measures of effectiveness enable comparison between the current state and the desired state, providing indications of individual and organizational change. The empirical results of this study demonstrate the practical utility of using the CAD model as a social outcome measure of effectiveness for analyzing awareness of workforce diversity issues at the organizational level. Longitudinal exa ation of individual employees' awareness development around the transition issue of diversity provides a dist ted view of organizational-level change in diversity awareness.

Contribution to New Knowledge in HRD

In application at both the individual and organizational levels, CAD provides a useful theoretical framework that helps predict, explain, and interpret attitudes and behaviors associated with workforce diversity. The framework provided by the CAD model may be helpful in a variety of organizational settings to analyze both discrete perceptions about workforce diversity issues, as well as progress made in transforming an organization toward a desired state. The CAD model may suffice as a diagnostic tool and measure for assessing organizational change.

Implications for Practice

The CAD model has utility for application as a diagnostic measure for practitioners. Wilson (1997) stresses the importance of measuring progress in accomplishing diversity program objectives. Linking CAD data to program objectives may be helpful for assessing current diversity program initiatives and for planning subsequent initiatives. The validity of CAD as a measure of effectiveness should be determined directly from stakeholder expectations. Once CAD is linked to program objectives and validated as an appropriate measure of effectiveness, specific metrics for assessing change should be determined (e.g., a 5% increase in awareness development). It is worth noting that the literature shows a trend toward diversity programs that provide employees with awareness and tools for transforming the organizational culture over time. Unfortunately many stakeholders look for significant and immediate organizational change. Assessment should be longitudinal; multiple readings over time with appropriate metrics that benchmark incremental change.

The data from this study indicate employees' differing levels of awareness development around workforce diversity; some understand it while others do not. Much of the inequity in organizations occurs because employees are treated the same and differences are ignored (Wilson, 1997). Effectively managing diversity means acknowledging differences, including "acknowledging individual employee needs and then accommodating these needs" (p. 18). Treating all employees as if they have the same awareness of workforce diversity may prove problematic. Instead, practitioners should ensure that diversity programs plan for addressing differing levels of diversity awareness development. The diversity strategy should include provisions for helping employees move through the CAD model. Those who are in the pre-encounter stage of awareness development need help in understanding that workforce diversity is a legitimate issue. Those in the intellectualization stage need learning opportunities to move beyond only cognitive to psycho-social and emotional learning. Those in the encounter stage

need a safe harbor for constructively venting their frustration, anxiety, anger, and fears regarding the changing workplace. These individuals need help in making sense of the changed workplace and in regaining their sense of personal control, so they can move out of the encounter stage to the empowerment stage. Communicative learning through social support systems can foster movement through the empowerment stage to the integration stage.

Much of the research on organizational learning and change focuses on strategies that would be useful for facilitating movement out of encounter into the empowerment stage of the CAD model. These include critical reflection (Brooks, 1999), informal learning (Volpe, 1999), preserving morale (Mishra et al., 1998), using the manager-as-trainer approach (Watkins, Ellinger, & Valentine, 1999), developing emotional capability (Huy, 1999), and encouraging extrarole efforts (Morrison & Phelps, 1999). Hedberg (1981) highlights the need for the unlearning of existing cognitive maps and frames of reference that affect organizational routines before new learning can occur.

Practitioners must be ready to assist employees and management in moving through the cycle, while recognizing that some work groups and individual employees will need additional help in moving beyond the encounter stage. Diversity training programs, for instance, should focus on moving employees out of the pre-encounter stage to enhance their understanding of what one of their coworkers might be going through as a result of his or her individual diversity. Practitioners must recognize that confrontational diversity training forces people into the encounter stage. While this training method may be appropriate, the training design must also move the participant out of the encounter stage, through the empowerment stage, to the integration stage via skills building and development of support systems and networks.

Areas for Further Study

Any number of questions remain regarding awareness development and the variety of dimensions of diversity. Are there awareness development implications in cross group comparisons? Can a male fully understand the encounter stage precipitated by gender inequities experienced by a female coworker? Would the dynamic be similar between two minority employees? How can a clerical employee who has regained his or her sense of worth and contribution to the organizational mission by moving into the empowerment stage, effectively interact with the core occupation employee who has no concept of his or her careless dismissal of support personnel? How can the single employee move beyond the rage stage of encounter when, yet again, he or she is expected to go on travel or work late because other colleagues need to get home to their families? Can generalized expectancies for diversity awareness development be discerned regarding ingroup/outgroup members?

The construct of awareness development is ripe for further empirical study demonstrating transition through the cycle at the individual, group, and organizational levels of analysis. While this paper has shown that the CAD model provides practitioners with an organizational assessment tool, its utility should be explored further. Both qualitative and quantitative analyses of where the organization is in the CAD model can be determined through the collection of discrete and longitudinal data examining change in awareness development over time in a variety of other organizations. Cause/effect of awareness development should be explored. We need more compelling arguments regarding the cycle, particularly the variables that affect progression through the cycle. Much remains to be done before the practical utility of the concepts presented in this paper can be realized.

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Diversity Dialogues in the Workplace: A Study of Implementation Issues

Martin B. Kormanik
Kim S. Apperson
O.D. Systems, Inc.

The structured process of dialogue encourages self-reflective conversation and inquiry that breaks through tension and conflict created by difference. The process has primarily been used in a social or civic context. Some organizations have begun exploring dialogue as a discrete initiative in diversity programming efforts. This study provides empirical data examining the workplace implementation of a structured dialogue on diversity. Discussion highlights strategies for maximizing participation and effectiveness in a workplace implementation. Implications for practitioners and suggestions for further research are noted.

Keywords: Dialogue, Diversity, Training

Studies of United States (U.S.) demographic changes indicate that the American workforce will continue to grow more diverse (Tsui & Gutek 1999). Lifestyle and societal attitude changes that impact the workplace are occurring at such a rapid pace that they are difficult to manage (Ingrassia, 1993). Workforce diversity has become a major area of focus in the contemporary organizational environment, with many organizations striving to increase the understanding and effective management of a diverse workforce through formalized diversity programs (Wilson, 1997). The "increasing awareness of how our melting pot society affects business has increased the demand for diversity" programs to help organizations deal with change (Caudron, 1993, p. 51). Organizational effectiveness requires viewing broad diversity issues (e.g., communication, teambuilding, interpersonal relations) as systemic in nature (Beer & Eisenstat, 1996). A diversity program, therefore, represents a long-term change process, not an isolated event (Caudron, 1993; Johnson & O'Mara, 1992).

Formalized diversity program objectives generally focus on three areas of change: increasing representation of underrepresented groups, increasing awareness and sensitivity, and developing an organization culture that supports change (Washington, 1995). Each of these foci have implications for planning specific diversity program initiatives. Consequently, programs generally include multiple initiatives (Wilson, 1997). A training course may be only one of several initiatives sponsored under an organization's diversity program. Other initiatives may include a "diversities day," formal recruitment programs, poster campaigns, seminars on legal issues, brown bag discussions, guest speaker series, focus groups, and teambuilding retreats.

Recently, some organizations have begun exploring structured dialogues on diversity (Kormanik, Krieger, & Tilghman, 2000). The theory and practice of dialogue provides a process for opening up conversation that enhances awareness and understanding of controversial and divisive subjects (Roth, Herzig, Chasin, Chasin, & Becker, 1995). The structured dialogue process is now being applied as a model for enhancing awareness and understanding of workforce diversity issues (Todd, 1994). In these instances, the dialogue process is primarily designed to enhance individual growth through personal development and understanding, rather than focusing on diversity programs' traditional objective of organizational or work group effectiveness.

Problem Statement

Embarking upon a diversity program initiative without having clear goals in mind can often create more problems and tension than if nothing had been done at all (Rynes & Rosen, 1995). Careful planning is needed to ensure alignment with the organization's diversity program strategy and to optimize the success of each program initiative, including diversity dialogues. Also problematic is the lack of information on optimal strategies for conducting structured diversity dialogues in a workplace context, given the amount of resources (e.g., time, money) that would be allocated to the implementation of a large-scale diversity dialogues initiative. For example, Kormanik, Krieger, and Tilghman (2000) show that drawing dialogue participation from an intact work group may be problematic due to mission priority. The organizational culture may not support pulling a critical mass of employees away from doing "real work" so they can have a "rap session." Fear of reprisal is an additional deterrent to using the dialogue process in a workplace setting with a group of participants from an intact work group. This

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differs from Karp & Sutton's (1993) recommendation that effective diversity program initiatives include intact work groups to maximize the likelihood of cultural change.

This paper presents a study of the workplace implementation of a structured diversity dialogues initiative. The purpose of the study is to provide a narrative of the process and provide empirical data collected from dialogue participants regarding participation, implementation, and effectiveness issues.

Research Question

One question drove the research process: What strategies should be used for implementing structured diversity dialogues in an organization whose culture places priority on mission accomplishment to the detriment of attention to workplace diversity issues?

Theoretical Framework

The theory and practice of structured dialogue focus on opening up conversations to enhance awareness and understanding of controversial and divisive subjects (Roth, et al, 1995). The dialogue process is often applied to discussions of polarizing societal issues like abortion, capital punishment, and gay marriage (Study Circles Resource Center [SCRC], 1993). Dialogues as a workplace diversity program initiative most directly address the diversity program objective of increasing employee awareness and sensitivity.

Dialogue, however, is different from sensitivity training, active listening, debate, and other such communication processes in that it is collaborative, with two or more individuals working toward finding common ground (SCRC, 1993). Dialogue "emphasizes the idea of a 'meaning' that flows between people from which emerges a greater understanding—possibly even a shared meaning" (Weinstein, 1995). Dialogue requires temporary suspension of one's beliefs, opening up to critical reflection, and reevaluation of underlying assumptions (SCRC, 1999). The open-ended nature of dialogue suggests that there are no "right" answers, nor is there a need to find a solution. It is the process of engaging individuals in the dialogue that is most important to the learning process.

One of the distinctions of adult learning is that adults have a life of experiences to draw from. An adult's "frames of reference" represents the assumptions through which they understand their life experiences (Mezirow, 1997). Frames of reference define the adult's life world and shape the adult's mental and behavioral activity. Adults tend to reject factors (e.g., ideas, values, associations, feelings, responses) which are not in sync with their frames of reference. Mezirow identifies "point of view" and "habits of mind" as two dimensions of frame of reference.

> "Habits of mind are broad, abstract, orienting, habitual ways of thinking, feeling, and acting influenced by assumptions that constitute a set of codes. These codes may be cultural, social, educational, economic, political, or psychological. Habits of mind become articulated in a specific point of view—the constellation of belief, value judgment, attitude, and feeling that shapes a particular interpretation" (p. 5).

Mezirow (1997) identifies four processes of learning: elaborating on one's existing view, identifying new points of view without changing one's own, transforming one's point of view, and transforming one's habit of mind. A diversity dialogue focuses on the transformative learning processes identified by Mezirow.

> "We can have an experience in another culture that results in our critically reflecting on our misconceptions of this particular group. The result may be a change in point of view toward the group involved. As a result, we may become more tolerant or more accepting of members of that group. If this happens over and over again with a number of different groups, it can lead to a transformation by accretion in our governing habit of mind" (p. 7).

The dialogue process is designed to transform point of view, reveal assumptions for reevaluation, and cause introspection on one's own position (i.e., challenge habit of mind) (SCRC, 1993).

The dialogue process is structured to encourage the active involvement of all participants (Roth et al, 1995). Abella (1986) shows that getting people involved and showing application to day-to-day life, versus didactic presentation of theoretical or legal information, is the more effective methodology for a diversity program initiative. The dialogue structure also entails a dialogue group meeting at regular intervals to continue the questioning, listening, and reflection processes (SCRC, 1993). Part of the structure comes from a prepared package of materials comprised of a statement of the purpose of the dialogue, ground rules for participation in the dialogue, and an array of articles on the dialogue topic that provide a diversity of perspectives (SCRC, 1999).

Individual and Organizational Change

The dialogue process indirectly addresses the diversity program objective of systemic culture change. Hersey and Blanchard (1982) identify knowledge (i.e., facts, information), individual attitude (i.e., mindsets, values, biases, stereotypes), individual behavior (i.e., actions), and group behavior (i.e., mores, norms) as four building blocks of change. Hersey and Blanchard's (1982) individual attitude construct is emblematic of Mezirow's (1997) habits of mind and point of view. Group behavior in this context corresponds to Hofstede's (1980) collective mental programming and Schein's (1992) organizational culture. Hersey and Blanchard suggest that change occurs in one of two cycles. Change is either participative, based on personal power (e.g., personality, education, experience, expertise), or directive, based on position power (e.g., law, regulations, guidelines, rank, title).

Optimally, a diversity program includes initiatives that entail participative and directive change cycles. Management has the power to mandate that all employees participate in diversity program initiatives (i.e., directive change). The structured dialogue process, however, is traditionally oriented toward participative change, rather than directive. Participation in the process increases the individual's knowledge base, providing motivation for the individual to change (Abella, 1986). Knowledge gained from participation leads to individual attitude change, which theoretically leads to individual behavior change. Using Hersey and Blanchard's (1982) model for change, once a critical mass of individuals change their behavior, group behavior change occurs (i.e., organizational culture change).

Although dialogue is primarily oriented to the individual level of analysis, the process is also applicable to the organizational setting as a way of cutting through the communication barriers separating organizational subcultures (Schein, 1995). Over time, individuals within the same organization who engage in dialogue will develop shared mental models (i.e., frames of reference), including assumptions about the world, the way the things gets done, and the way things should get done (Boyett, 1995). Organizational learning occurs through the development of these shared mental models. Without shared mental models, organizational learning may be stifled because individual efforts might not be directed towards group or organizational goals.

Many authors suggest that a structured dialogue process involving critical reflection should be the foundation of effective action within any organization (Marquardt, 1999; Schein, 1995; Weinstein, 1995). Schein (1993) argues that "dialogue is necessary as a vehicle for understanding cultures and subcultures, and that organizational learning will ultimately depend upon such cultural understanding. Dialogue thus becomes a central element of any model of organizational transformation" (p. 40). Unlike many diversity initiatives, diversity dialogues move beyond shaping behaviors to changing personal attitudes and challenging prejudice and stereotypes. This change process is ideally suited to a diversity program initiative.

Methods

This was a study of a single entity bounded by time and activity. Lincoln and Guba (1985) suggest that such a study be conducted in a natural setting, noting that phenomena "take their meaning as much from their contexts as they do from themselves" (p. 189). The organizational context provided the natural setting.

The Site

The site for the study (the Agency) is a 3,200-employee U.S. Government agency. The Agency's mission is scientific and extremely technical in nature. Primary focus and priority is given to technical issues. Technical proficiency is highly valued, and the Agency has enjoyed a history of leading in technical competence. The high focus on technical competence has greatly de-emphasized the importance of "people" issues, leaving the perception that mediocrity on people issues is acceptable. As a result, the Agency has faced difficulty in recruiting and retaining employees. This compounds the issue of not having a representative workforce, and has brought the larger issue of workforce diversity to the forefront. A 1997 employee opinion survey and focus groups conducted in 1998 and 1999 also increased attention to diversity issues.

Since 1987, the Agency has conducted many diversity program initiatives, addressing all three areas of diversity program objectives (e.g., demographic representation, awareness and sensitivity, systemic culture change). Specific initiatives have included training programs; the establishment of a multi-cultural advisory team; the initial development and timely revision of a Diversity Management Plan; diversity "celebrations" with educational speakers, ethnic food, and entertainment representing different cultures; and, several seminars that dealt with specific aspects of diversity in the workplace.

Diversity Dialogue Groups

Diversity dialogue sessions were envisioned as a follow-on training initiative that could have implications in various workplace settings. One such application was for intact work units to come together and engage in dialogue about diversity and related topics that affect the local work climate. Another was for "change agents" from across the organization to have a forum to discuss their experiences at the organization from a personal perspective and to be able to work together to make the organization more inclusive and effective in the future. These two perspectives resulted in two pilot diversity dialogues groups. The pilot diversity dialogues were conducted in 1999, with the finding that cross-organizational participation was preferred (Kormanik, Krieger, & Tilghman, 2000). The purposefully-chosen sample for the pilot groups was small, with a total of 25 selected to participate, 16 completing the pilot dialogue series, and only 13 completing the survey at the completion of the pilot dialogue series.

Seventy-five dialogue participants were invited to participate in the new dialogue series. Participants were assigned to one of five groups, maximizing the diversity in each, using such diversity factors as gender, age, race, national origin, and occupation. The same OD approach used in planning the pilot initiative was used for the new groups. Discussions with Agency representatives helped to assess the current state of the organization, clarify the desired state, identify the barriers to attaining the desired state, and a plan of action for implementation of the new dialogue groups. The initiative was intended to enhance personal growth and development, provide an opportunity for surfacing diversity issues, foster individual perspective and behavior change, and help participants understand and model appropriate work place behaviors. The initiative was intended to provide an organizational solution to diversity issues, remedy the past, or replace other diversity program efforts.

Using a structured framework to guide discussion, the diversity dialogues included 10, two-hour sessions scheduled every other week at the same time. All dialogue sessions were conducted on-site, at various buildings in the Agency's campus-like setting. The first session was an orientation for all dialogue participants. Participants were given a dialogues package which included the initiative purpose and objectives, expectations, framework, schedule, excerpts from the Agency's Management Plan and values statement, and articles illustrating differing perspectives on diversity. Before each subsequent session, a summary of the previous session was e-mailed to each dialogue participant. Participants were encouraged to provide feedback on the summaries. The facilitators opened each session by reviewing the summary and the expectations for the current session. The articles were used to stimulate thought and discussion. Several management models were also used to examine the individual's approach to change surrounding diversity in the Agency's work environment.

Data Collection and Analysiss

Qualitative data was collected from multiple sources. The summaries of each of the dialogue sessions, developed by the dialogue participants and dialogue facilitators, were the primary source of data. The qualitative data also includes first-hand observations from the facilitators' journaling during the duration of the study. Data came from other stakeholders, including the equal employment opportunity (EEO) Program Office, human resources, and management representatives. Physical artifacts were examined, including the organization's strategic plan, employee opinion surveys, diversity statement, and other documents. Data analysis included description and identification of themes in the findings and assertions. This study used a highly participatory mode of research, involving dialogue participants in every phase of the study.

The qualitative data was augmented with descriptive statistics. Quantitative data was collected after the last dialogue session, using the same instrument administered at the conclusion of the pilot dialogues. The instrument asked for participants' reaction to the diversity dialogues initiative, as well as their perceptions on the dialogue process, its applicability to the organizational context, and whether the stated objectives for the diversity dialogues were met. The body of the instrument consisted of 32 statements. Participants responded to the statements by indicating "Strongly Agree," "Agree," "Undecided," "Disagree," or "Strongly Disagree." Frequencies for response sets from all participants were tabulated using statistical software. Additionally, analysis of variance (ANOVA) was conducted for cross-group comparisons.

Results

The findings show that the culture of the Agency gives priority to the technical mission, almost to the exclusion of all other activities. Participants' data show that managers and employees do not see diversity as an integral part of mission accomplishment. Participant comments indicate that in this scientific environment diversity is seen as amorphous, without easily calculated metrics or solutions. Participant observations of management reaction to

diversity issues have included denial, disregard, and avoidance. Discussion of diversity detracts from mission accomplishment and should be avoided. Diversity issues are ignored unless there is an associated problem with the task at hand. When data indicates a diversity problem, there follows a request for more data for analysis rather than any attempt to understand and address the issue.

Given the Agency's culture, employees are quick to use the scientific method, collecting and analyzing data to solve a technical problem. When faced with a diversity issue, they take a different, more cautious approach. Discussion of diversity in the workplace is difficult, takes time, and involves risk, making it hard to do in a risk-averse environment where time is a highly-guarded resource. The Agency's culture leaves employees doubtful of the importance of diversity to the overall business strategy and to mission accomplishment. Dialogue participants continually talked about mixed signals when examining the Agency's response to diversity issues. The value of the diversity dialogues initiative was questioned. One participant summed it up with, "I have to get my job done, so my interest in coming to the sessions doesn't matter, just like my diversity doesn't matter."

Several participants noted that the dialogues were the only option for open discussion of diversity issues in their workplace. Even though participants may have perceived the need to participate in the diversity dialogues, they opted for work-related meetings when given a choice. The data indicate that individuals want to talk about diversity issues but, at work, they see the emphasis on mission accomplishment; they think they'll be rewarded more for, and would rather spend time on, work directly related to "mission essential" activities.

Survey Responses

There were no significant differences between the data from the pilot dialogue groups and the new dialogue groups. This enabled combining the data to increase sample size (n= 87). The survey covered three areas: participation, implementation, and effectiveness. In terms of participation, three statements received a high level of agreement: participants in a diversity dialogues group should be drawn from across the Agency (85.7 %), be representative of the diversity of the Agency (91.1%), and participants thought their supervisor should participate in a diversity dialogues group (73.2%).

Participants responded to statements regarding the implementation of the initiative. In terms of scheduling, participants agreed that two hours was sufficient time for dialogue (87.5%) and that diversity dialogues sessions should be scheduled at regular intervals (80.3%). Participants agreed that the examples shared by the facilitators were helpful in providing a deeper understanding of diversity issues (87.5%). They also agreed that diversity dialogues should continue as a vehicle to allow employees to share perspectives on work force diversity issues at the Agency (96.4%).

There was a substantial amount of agreement that diversity dialogues was effective. Over three-quarters (78.6%) of participants agreed that the stated purpose and objectives of the diversity dialogues were met. Participants felt that there was a mood of openness among the participants (91.1%) and that diversity dialogues made discussing diversity issues less risky (85.7%). Also, participants said they heard different perspectives on work force diversity (92.8%) and now have a deeper understanding of diversity issues among Agency employees (92.8%). The diversity dialogues sessions also helped participants examine the role of individual employees in creating positive change (87.5%). Finally, diversity dialogues helped participants identify behaviors that promote mutual respect for divergent perspectives in their work environment (91.1%) and to confront assumptions, perceptions, and stereotypes that impede their effectiveness (73.2).

Cross-Group Comparison

Cross-group comparison included demographic categories of age, race, gender, occupation, and tenure. Surprisingly, there were no statistically significant differences in survey responses based on gender, occupation, or tenure. ANOVA results indicated that significant differences were found in mean ratings of certain items based on race. Specifically, Black participants rated higher than all other racial categories the desire to have their supervisor present at the diversity dialogues sessions ($F=3.87$, $p<.01$). Also in terms of race, Hispanic participants rated higher than all other racial categories that the diversity dialogues sessions should be limited to one hour ($F=2.76$, $p<.01$). ANOVA results also indicated that there was a statistically significant difference in survey responses based on age. Participants over the age of 60 rated higher than all other age groups that two hours was sufficient time for dialogue ($F=6.95$, $p<.01$). They also indicated in their responses that they were now more aware of the impact of diversity in the workplace ($F=3.58$, $p<.01$).

Conclusions

This study looked at the issues of implementing diversity dialogues in an organizational setting. It could be inferred that the Agency's culture was not conducive to the diversity dialogues process. The workplace focus on task to the exclusion of other activities, the de-emphasis on discussing non-work issues, the limited communication skills of employees and managers, and the inability to see the nexus between diversity and mission accomplishment surfaced as challenges to effective dialogue implementation in a workplace setting.

Fundamentally, a diversity initiative must create awareness of diversity, its impact on the workplace, and its impact on the bottom-line (Johnson & O'Mara, 1992). Diversity initiatives generally must link the diversity program to the corporate culture and business objectives of the organization to be successful (Wilson, 1997). The dialogue process represents a major shift from this philosophy. It also represents a major change for an organization's task-oriented employees. Clearly, organizational learning was impeded by the lack of shared mental models linking diversity program initiatives and mission accomplishment. In this study, the Agency's focus on task was detrimental to dialogue attendance.

Dialogue participants wanted tools and the "right answers" to questions about diversity issues. This expectation is anathema to the dialogue process. Studies show failure of diversity initiatives is often due to unclear expectations (Delatte & Baytos, 1993; Karp & Sutton, 1993). Even though participants understood the purpose, they sometimes viewed the dialogues as "training" and were frustrated at times when there were no "right answers" available. Despite the occasional frustration, participants commented that they learned about self and had a greater appreciation for other participants, as well as a better understanding of the multitude of diversity issues through the dialogue.

The data from this study show that an organization's management can increase participation in a structured diversity dialogue initiative by increasing the status of the initiative. One way to accomplish this is by directive change, making dialogue participation mandatory. Alternative options, such as showing visible support and personal participation from management may prove more beneficial to changing the culture through a participative change cycle, similar to that described by Hersey and Blanchard (1982). Mezirow (1997) suggests that in attempting a transformative learning process, an individual's "points of view are more accessible to awareness and to feedback from others" (p. 6). Transforming habit of mind requires heightened awareness and critical reflection of generalized bias. This commonly indicates the need for participative change. While mandating the program for all employees may improve attendance, the quality of that participation may not support transformative learning.

Contribution to New Knowledge in HRD

This study contributes new knowledge in HRD by addressing the issues for implementing structured dialogue in a workplace setting. Arguably, there are numerous reasons for the failure of diversity program initiatives. Kormanik and Geffner (1995) show three primary restraining factors: a lack of personal responsibility and accountability, a lack of positive leadership at all levels, and a lack of visible management commitment. All three of these barriers surfaced in this study, and must be strategically addressed in any workplace implementation of diversity dialogues. Specific strategies, however, may enhance the success of dialogue implementation. Strategies include visible management endorsement making diversity an integral part of the "real work;" senior management participation, direct involvement, and scheduling flexibility; increased positive communications throughout the workplace to give the activity greater status and priority; and an increased premium on developing "soft" skills (e.g., communication, interpersonal relations, teambuilding). All of these may promote systemic organizational culture change.

Limitations and Areas for Further Research

The purpose of the study was to provide an explanatory narrative of the implementation of diversity dialogues. It was not intended to examine the effectiveness of diversity dialogues as a specific diversity program initiative. Rather, this is a study of the implementation process, and a discussion of the lessons learned from that process. Also, this was not a study of the trends which may emerge from a structured dialogic process (see Kormanik, Krieger, & Tilghman, 2000). Further research is needed to address the larger issues of diversity program effectiveness and the linkage between diversity programs and organizational performance. A comprehensive analysis of the efficacy of a diversity program or a discrete program initiative would require a long-term, posttest evaluation to ensure validity (Dixon, 1990). Because this study was limited to one organizational context and the

dialogue focus limited to the issue of workforce diversity, comparison of these results with research in other organizational contexts and focusing on other dialogue topics is warranted.

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Passions for Excellence: HRD Graduate Programs at US Universities

K. Peter Kuchinke
University of Illinois at Urbana-Champaign

Using a multiple case study approach, the author investigated leading university graduate HRD programs focusing on history and institutional characteristics; norms and values of administrators, faculty, and students; and present status and visions for the future. The analysis reveals convergent and divergent themes related to the genesis of programs and subsequent theoretical orientation, their standing within their academic homes, the reach and comprehensiveness of curricula, and issues and concerns faced by faculty, administrators, and students.

Keywords: HRD University Programs, Case Study

Human Resource Development (HRD) university programs form important parts of national systems of HRD by educating future practitioners, providing continuing professional development, and preparing the next generations of researchers and teachers. While HRD and related curricula played relatively minor roles in many university departments in the 1970s and early '80s, their enrollments and stature have increased over the past 15 years to a point where they are now the "bread and butter activity" (Gray, 1997, p. 80), drawing large enrollments of certificate, masters, and doctoral students. HRD programs and courses experience strong demand, also from non-education undergraduate students who are seeking employment skills. While most programs were established in the 1980s, the decade of the 1990s saw an increase by about 15% (Kuchinke, *in press*), and by 1997, some 250 U.S. colleges and universities were offering certificates and degrees in HRD and related fields, such as instructional technology and performance technology (ASTD, 1996). Despite the fact that HRD programs are firmly established in the Academy, both in the US and abroad (Chalofsky & Larson-Daugherty, 1996), there is little systematic research on them.

This present study emerged from a need sensing process conducted with a panel of 21 leading HRD scholars in the US and Great Britain in 1999 that surfaced as one of three most pressing areas requiring investigation questions about institutional characteristics and arrangements of academic programs (Kuchinke, 2001a). A subsequent survey of 83 prominent university programs yielded important insight into institutional and curricular features (Kuchinke, 2001b). The results of the study reported here represent a second stage in this line of inquiry using a multiple case study approach to gain in-depth insight and information on three purposefully selected US HRD graduate programs located in the eastern, southeastern, and midwestern parts of the country. This qualitative study focused on three primary areas: institutional features; genesis, present status, and future plans; and norms and values of administrators, faculty, and students. These areas were selected because they reflected the consensus of the expert panel as needing investigation and had emerged as important areas of investigation from both available literature and the survey of HRD programs. The information gained from this study are deemed to be important for current and future HRD academic program administrators, faculty, and students of the field as well as those interested in the evolution of HRD as a field of research and teaching.

Review of Literature

When conducting a review of literature of HRD programs, the dearth of existing empirical work became evident. The listing of programs published by the American Society for Training and Development annually until 1997 is often cited as the authoritative source for the population of programs (for example, Chalofsky & Larson-Dougherty, 1996), but it is likely to be incomplete (Kuchinke, *in* press). Early work by Pace (1984, 1988) focused on the comparison of HRD curricula. More recently, two large-scale surveys addressed issues of curriculum, program names, and enrollments (Gaudet & Vincent, 1993; Kuchinke, *in press*) but were based on convenience samples and failed to provide qualitative program-level information. Survey work by Peterson and Provo (1996) profiled the HRD and Adult Education professoriate and included responses of some 140 faculty members. In the related field of Adult Education, Milton, Watkins, Spears Studdard, and Burch (2000) used a mixed-method approach to investigate recent changes in adult education graduate programs focusing enrollment and faculty growth.

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Several single-program studies have been presented at national conferences, and these include Willis and Kahnwiler's (1995) account of the genesis and continuance of an HRD program within a general systems framework. The authors chronicle the evolution of a single program over a six-year period and report on curriculum development and implementation, alumni and student survey results, market analyses, and alumni interviews. There are also a small number of studies investigating the adequacy of the academic curriculum when compared to professional roles and competencies (for example, Baylen, Bailey, & Samardzija, 1996; Leach, 1993; Dare & Leach, 1999).

Research Questions and Methodology

The lack for systematic information on academic programs leads to uncertainty among faculty and administrators about the scope and endurance of the field, among students who seek targeted career preparation, and among employers who want clear information about prospective employees. To begin to answer these and related questions, three overarching research questions were pursued in this study.

1) What are the historical development and institutional characteristics and arrangements of HRD programs?
2) What are the norms and values of HRD program administrators, faculty, and students?
3) What are the current challenges of and future plans or visions for HRD programs?

Because the main purpose of the study was to gain an in-depth understanding of HRD programs, a case study design was selected which allowed to investigate these programs in their real-life contexts and include relevant contextual factors (Yin, 1994). For the purpose of this study, each of three HRD programs was framed as a case or unit of analysis in a multiple case study approach that allowed for comparison and contrast of major themes. The three programs are large, highly visible, and regarded as prominent in the HRD scholarly community. The three were located in the eastern, southeastern, and midwestern parts of the U.S. and each is classified as a Carnegie Extensive Doctoral/Research University. Three primary data collection methods were used: interviewing, document analysis, and observation. In spring and early summer of 2001, I conducted a total of twenty-two interviews of about one hour each during site visits to the three programs of about two days each. Conversation partners included 18 faculty members—three of whom also had administrative responsibilities in their respective departments, one full-time administrator, and 25 graduate students. Interviews were recorded and transcribed and later analyzed using open coding for thematic analysis (Corbin & Strauss, 1990). Questions for faculty and administrators centered on the history and status of the programs, on successes and challenges, and plans for the future. Student interviews addressed student's professional and educational backgrounds and goals, their reasons for applying to the program, and their experiences in the HRD program.

I used printed and on-line documentation on each program to prepare for the site visits and to obtain program information. I used observational techniques during each visit for additional contextual information. I used a two-stage validation process (Van Manen, 1990): During the interview process, I ensured accuracy of understanding through questioning and rephrasing and by summarizing the information at the end of each interview. In a second stage, program descriptions and summaries of the thematic analyses were sent via e-mail to participants at each site with the request for critique and comments, and their reactions are incorporated in this report.

The primary limitations of this study result from its design within a case study framework using largely qualitative data. The three programs, while prominent, present a purposeful sample and are not likely to be representative of the population of HRD academic programs. Thus, the findings may lack external validity and do not generalize. Further, time limitations and scheduling conflicts restricted the number of interview partners. In particular, missing from the analysis are part-time and adjunct faculty, faculty on leave, and part-time students. Third, the design did not incorporate stakeholders beyond the particular program, such as those at the school, college, and campus levels, and alumni or employers. These limitations clearly indicate the need for further research.

Results

To provide contextual information, a brief summary description of each program is given at the beginning of this section, followed by results and findings related to the three overarching research questions: history and institutional characteristics, norms and values, and challenges and visions for the future.

The HRD program in the eastern part of the country (Eastern) is located in a major metropolitan area on a largely residential campus with some 23,000 students, the majority of whom are graduate students. The HRD program is housed in one of three major departments in the Graduate School of Education. It offers masters and doctoral programs in several different formats on the main campus, off-site, and internationally. A certificate option

of three courses is also available. Overall enrollment is about 100 students, with some 40 enrolled in the doctoral program, and the majority of students are working adults who attend part-time. There is a research center is affiliated with the program focusing on issues of learning that provides a research-to-practice link with corporate and institutional clients. The program was established some 30 years ago and has ten full-time faculty with backgrounds in education, management, psychology, and other social sciences. Eastern's program mission is to "enhance critical thinking skills by examining organizational processes and structures to improve workplace performance" and is structured around three pillars: people, organizations, and learning.

The HRD program in the southeastern part of the country (Southeastern) is located near a major urban center and belongs to one of several schools within the College of Education. The program draws on faculty, resources, and expertise from two departments, Adult Education and Occupational Studies who combined offer a master's (M.Ed.) in Human Resource and Organizational Development and two certificates (off-site, part-time) in training/HRD and instructional design and technology. A doctoral emphasis in HRD is offered as part of the Adult Education or Occupational Studies departments. There is a joint curriculum committee, and currently there is a program head and one faculty member from each of these two departments with primary focus on HRD. There are about 30 HRD masters' students, 15 doctoral students with an HRD emphasis, and 20 students enrolled in the weekend certificate options. The program's emphases are on learning within organizations as well as on career and organization development, group facilitation, globalization, and workplace educational technology. Conceptually, the program is focused on the integration of development, training, and technology for the purpose of promoting learning in organizations. Its vision is to educate graduates to become "reflective practitioners with excellent interpersonal helping skills, strategic business partners with the ability to link [human resource and organization development] to the needs of global, complex human systems".

Located in a university town about 2 hours away from three major urban centers, the program in the midwestern part of the country (Midwestern) forms one of two emphases within the department of Human Resource Education that, in turn, is one of six units in the College of Education. It offers masters and doctoral degrees as well as a graduate level certificate requiring a minimum of eight courses beyond the master's degree. Active graduate enrollment in the HRD emphasis is about 120, and this includes two part-time online master's cohorts. There are two primary programmatic emphases in the HRD program: teaching and learning—focused on instructional design, delivery, evaluation, and technology—and organization and leadership development. Over the past several years, increasing emphasis has also been placed on international HRD. The program's mission is "global leadership in the generation and transmission of knowledge for educational training and development, professional preparation in the development of research, teaching, and leadership capabilities of individuals and organizations, and quality professional services to public and private organizations and agencies interested in life-long learning at local, state, national, and international levels."

History and Institutional Characteristics

When looking at the genesis and histories of the three HRD programs, three alternative patterns of evolution can be discerned that appear to affect the program signatures and standing within the school/college environment. In the case of Eastern, the program was established as human resource development by one of the field's founders as early as 1970, focusing on program planning and design. In the mid-1980s the program expanded as new faculty members joined, adding organization and career development expertise, new program format options, and the international doctoral cohort and executive leadership programs. Thus its identity as and focus on HRD was never questioned. As one faculty member put it, "we are who we are and we were never something else". This undivided focus and continuity of direction on HRD appears to provide the program at Eastern a degree of legitimacy and freedom in staffing and curricular matters not found in the other two programs. As a matter of policy, for example, new faculty are recruited from the core social sciences, such as psychology, or from schools of management with expertise in organizational behavior, rather than from other HRD programs or schools of education. The breadth of faculty expertise in the social sciences is organized around the three pillars of organizational development and change; leadership development; and individual, group, and organizational learning. Eastern's HRD curriculum includes—in addition to HRD and adult learning content— foundational courses and course content in anthropology, psychology, sociology, and management science, as well as applied organization science topics. As a result of this broad focus, Eastern attracts students with a wide range of academic and professional backgrounds and goals. Eastern's program brochure states the intended career paths for its graduate as follows: "Because of the enhanced knowledge and skills, many students find that the degree program serves as a springboard to attain professional goals—entry into management consulting positions and challenging HR jobs, or promotions into higher levels of HR and management responsibility."

When Eastern's program reflects a broad multidisciplinary approach, the institutional history and resulting program structure at Midwestern followed a different pattern. The HRD program evolved within a unit that until about ten years ago focused on the preparation of vocational teachers in a variety of subjects, including technical, business, agriculture, and home economics. Business and industry training played a relatively minor role in the department until recently when the vocational teacher preparation programs were closed or moved to other units on campus and the department changed its name to Human Resource Education. The HRD curriculum at Midwestern reflects its institutional tradition with a strong focus on instructional design and development, program evaluation, and instructional technology, although in recent years expertise in organization development and international HRD has been added through new hires. Still, the program is focused on the educational aspects of HRD. Faculty reported a degree of ambiguity towards HRD as a field and its role within a college of education. One faculty member reported: "Colleagues in the college and even in our department are skeptical over the role of an organization science based approach to HRD." While enrollments in the HRD are strong with two introductory courses regularly attracting well over 200 students from across the campus, faculty reported difficulties in developing HRD curriculum that reflects the broad interdisciplinary nature of the field. Applications for new courses, which require approval at college and campus levels, need to be clearly reflective of education-related content and cannot include openly any organization-science materials to be approved.

Despite these difficulties, however, the program appears to be thriving; once the bureaucratic hurdles of course approvals and reviews are passed, academic freedom ensures that teaching and research reflects current HRD theory and practice. The traditional orientation towards vocational education leads this program to explore linkages and integration between HRD and career and technical education. In non-traditional program offerings, such as the online program and the international course offerings in Africa and Eastern Europe, the focus on HRD within the context of the organizational sciences seems less problematic.

While the program at Eastern was focused from its start on HRD and the one at Midwestern emerged from a traditional vocational teacher preparation program, the program at Southeastern was created as a collaborative effort between two departments—Adult Education and Occupations Studies--both of which maintain their traditional foci but also contribute faculty and share in the governance to the HRD program. Historically, there had existed in both departments some course work, teaching, and research focused on HRD—with emphasis on organizational learning in Adult Education and on training and development in Occupational Studies. Initial plans for a cross-campus program in HRD in the early led to the plan for a cross-departmental program and the creation of one faculty position in each of the two departments focused specifically on HRD under the leadership of a program director. A curriculum committee with members of both departments is involved in course and program planning, and this joint governance is viewed as a source of strength in ensuring theoretical and intellectual breadth and richness. Despite philosophical differences of Adult Education faculty who focus on a broad range of issues, populations, and theoretical perspectives and faculty in Occupational Studies with a primary focus on public schooling and teacher education, the joint governance, in the words of one adult education faculty member "keeps the program honest."

The creation of the cross-departmental master's HRD program has resulted in an expanded and revised core curriculum of HRD courses including organization development, strategic HRD, and globalization and diversity. Student further select from additional coursework in technology and action learning. There is some course taking in other schools within the College of Education, especially in instructional technology and counseling, and students, on occasion, take classes in other units on campus such as industrial psychology, political science, and social work. As in the case of Midwestern, faculty at Southeastern commented on the need to "hide the term organizational from course titles and course descriptions and instead emphasize the link to education." Whereas the master's and certificate programs are offered through the HRD program, doctoral level students formally enroll in either the Adult Education or the Occupational Studies departments and develop a program of study with a focus on HRD in their home units.

The three programs, thus, have evolved in different ways —focused on HRD from the start, from the closing of a traditional teacher-training program, and a collaboration between two independent departments. These different histories appear to contribute to different institutional signatures with respect to staffing, curriculum, and the degree of acceptance of HRD. All three programs, while successful and expanding, indicated that HRD, as a subject matter and academic program, appeared to be a contested domain that needed to be justified and defended. While all three program contributed strongly to the instructional mission of their respective home institutions, there was a sense that its acceptance was, to a larger degree than for other programs, conditional on continued strong enrollment and generation of instructional units. A senior administrator shared the following observation: " Enrollments are needed but what really matters are the number of full-time faculty in HRD. Also, deans and administrator tend to look to other universities. The closure on one HRD program can have strong negative effects on the entire community".

Norms and Values of HRD Faculty, Administrators, and Students

The theme of marginality of HRD programs also extended to their relationships with other units in the college and on campus. To some degree, members of all three departments observed a lack of integration and collaboration with and a lack of recognition of other campus units. Within Education, HRD faculty commented on ideological disagreements, real and perceived. "HRD is seen as pro-capital and exploitative, I think other [Education] colleagues feel that we are selling out to big business," commented one faculty member. Another observed: "Colleagues in other departments often see the role of education as levying criticism on the existing political and social system, in particular those with a postmodern orientation. The fact that HRD is often defined as advancing organizations is often misunderstood to mean that we are corporatist." Relationships with related units on campus are also difficult, except for occasional bonds with faculty units built on personal relationships. As one administrator said: "Colleagues in business and labor relations often are surprised to learn that we focus on learning in business organizations. By and large, Education is associated with teacher training for public schools."

In this difficult institutional climate, HRD administrators and faculty at all three universities commented on the high level of entrepreneurial spirit that had led to the inception of the program and maintained it. In all three cases, the programs was built with much energy by one or two founding faculty who developed the curriculum, marketed the program, built relationships with the local business community, recruited students, and, overall, provided guidance and direction. As one faculty member observed: "We are very much operating in an entrepreneurial mode here, building the program, promoting it, working with extramural. Nothing is taken for granted." This level of commitment among HRD faculty and administrators is based on an intense desire to build up the programs and advance the field of HRD. Where other academic fields may rest on more established roles and support structures, HRD faculty acted much like business organizations in the early stages of their life cycle by expanding a high level of energy and commitment to establishing, growing, and expanding their programs in terms of curriculum, enrollments, staffing, and university internal and external relationships and linkages.

While this passion for the program and the field offered a unique characteristic and source of strength for each of the three programs, it also presents liabilities in terms of workload, continuance, staffing, and succession. With relatively small numbers of full-time faculty and a high degree of commitment to teaching, service, and research, heavy workloads appear to be the norm. In relatively small departments, turnover presents a real concern related to continuity and sustainability. Although none of the administrators interviewed appeared fearful of losing tenure lines, replacing senior faculty who were often also the founders of the respective programs was seen as a difficult challenge. As one faculty member observed: " All of us here are comfortable wearing these different hats and putting in long hours to build and grow the program. But I am not sure if we can expect that new faculty will have the same level of drive and commitment. This is not something you can write into a job description." A related theme concerned succession of senior faculty and program founders. With most universities having experienced lean years in the early and mid-1990s, several participants spoke of the missing middle. "We have a group of senior people who have been here for a long time. But we have almost no mid-career people because of the hiring freeze in the 1980s and 1990s. In recent years, we've been hiring again, but only at the assistant [professor] level. We now evenly split between full and assistants. Sustainability is a real issue here."

Individual and group interviews with masters and doctoral students at the three universities offered additional insight into these three leading HRD programs. The interviews focused on students' professional and academic backgrounds, their reasons for selecting an HRD program at the particular university, and their future professional plans and aspirations. In addition, students offered insights into the strengths and liabilities of their programs from their unique perspectives.

Many students had stopped out of higher education after their initial degrees and pursued full-time careers before returning for advanced studies. While some had worked in human resource related fields, many were career changers. Students came from areas as diverse as teaching, management, broadcasting, and counseling, and from religious and community-based organizations. When asked why they had selected the particular program, most students mentioned the reputation of faculty as a primary reason. Students had become familiar with the work of individual faculty members through books, journals, consulting work, or conference presentations. When asked why they had selected an HRD program instead of a related one in psychology, management, or industrial relations, students often cited the value congruence of the program with their own convictions and plans. As one student summarized: "Studying HRD in the School of Education gives me a degree of freedom and flexibility I would never have in a college of business. The approach here is developmental, and this fits with my personal philosophy and values." The two most prominent reasons for selecting an HRD program were related to the cross-disciplinary and

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systemic nature of the curriculum and its base in a humanistic, development-focused approach to business organizations. Several students, in fact, applauded the fact that the program was linked to education rather than business. One student explained: "I believe that the future of organizational development is in learning, and so [HRD] belongs in the School of Education. The economic and behaviorist approaches to business [taught in other departments] are simply too narrow. That's not what I want to do." While students were attracted to the broader philosophical base of HRD, several also voiced concern that this orientation might not fit well into a highly competitive business world and indicated that they were seeking a thorough grounding in business principles in order to be effective as HRD professionals.

Students also valued the fact that HRD curricula tended to be applied and focused on real world issues and that HRD faculty had much practical and current experience. Students further commented that faculty were very supportive of their professional development, and that the programs were flexible so that students could tailor it towards their individual needs. Several also commented on supportive and student-focused departmental cultures that made collaboration among students and between faculty and students easy.

Students identified several areas for improvement. Among them were limited opportunities for student funding, a relatively weak network between their department and the local business community for internships and job placements; a limited departmental infrastructure in terms of libraries, classroom equipment, meeting spaces, graduate research assistant offices; and relatively weak alumni networks. None of the three departments appeared to have formal job placement offices or formalized job search processes. While companies regularly recruited at business schools for talent, far fewer appeared to target HRD graduate programs. Instead, students reported job search strategies focused on personal and professional networks or through faculty contacts. All, however, expressed optimism about their career prospects and were looking forward to moving through the program and into professional positions. Interestingly, the vast majority of doctoral students appeared to be headed for consulting and business/organizational careers, with only the occasional student aiming to obtain an academic position in HRD university programs.

The Future of HRD Graduate Programs

The study also focused on future goals and visions by faculty and administrators. Despite the many challenges related to building and maintaining the programs, faculty and administrators appeared confident for the future of their respective programs and the field in general. While the role of HRD programs in schools of education was at times problematic, there was not doubt that the departments were secure and that, in the words of one senior administrator, "we have a home in Education and we are here to stay." Enrollments in all three programs had been strong and were predicted to remain so. Certificate programs, in particular provided a steady stream of students and served as a feeder to the degree programs. One program is planning to focus on the professional development needs of HRD professionals working in business and industry and in public and private organizations. Administrators voiced concern over being able to staff their departments with qualified faculty, and several used part-time instructors on a regular basis.

As they grow, the three departments stated similar choices with respect to enrollments and selectivity. As one faculty member observed: "I see two options for our program: Either grow the program—and this will require adding faculty who are entrepreneurial and energetic—or to grow smaller and focus more on research." A similar choice was observed by another faculty member at a different program: "I see our future as having strong masters and certificate programs and be able to run smaller doctoral cohorts and educate first-rate researchers and leaders in the field." In the third program, several faculty indicated the desire to become more stringent in their selection criteria for doctoral students in order to attract high caliber doctoral students who will want to assume leadership as future HRD faculty.

In terms of programmatic and curricular emphases, all three departments were continuing to evolve and change. This took the form of adding online courses and educational technology related content; of seeking ways to capture the complexity of HRD work in teaching and instruction; of theorizing the multifaceted and multidisciplinary nature of the field; of understanding and incorporating into research and teaching the implications of advancing technology and globalization for HRD; and of seeking to be proactive and leading the field rather than reacting to trends already in place. True to the spirit of entrepreneurialism of a young field and young departments, the level of commitment and energy among students and faculty were high, and so were the desire to excel and the passion to drive the field forward.

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Conclusions and Recommendations

Framed within an institutional theory framework, this study sought to establish detailed profiles of three leading HRD programs by focusing on their genesis and current status, norms and values, challenges and plans for the future. Using site visits, individual and group interviews, document review, and observation, convergent and divergent themes emerged.

One summary observation is the uniqueness of each program in terms of curriculum focus and institutional form, which might be explained by their differential histories. One program had been established as HRD and had evolved around a cross-disciplinary body of knowledge from a variety of social and organizational science fields united by a focus on learning. A second program had emerged out of a vocational teacher preparation program and was firmly anchored within an educational context, trying to build on the connections between HRD and career and technical education. The third program had been established as a cross-departmental effort, drawing on two fields of study with a clear emphasis on organizational learning and transformation. These three program forms speak to the diversity of traditions in the field and to the breadth of HRD graduate education. Far from providing uniform program signatures, the three programs had established unique and distinct approaches to HRD. This diversity of approaches reflects the multi-faceted nature of the field and also the multiplicity of definitions of or approaches to HRD. It is upon the individual departments to clarify their approaches to HRD for their own development efforts and towards students and employers and to situate their approach within a theory of HRD that is currently underdeveloped.

In this diversity there was also unity, and this was found in process and content. There was ample evidence of passions for the field, for the development and growth of programs, for the development of students, for broadening the reach of their departments through off-campus offerings, for exploring new ways of program delivery, and for advancing theory, research, practice, and teaching in HRD. There was a sense of excitement and pride shared by faculty, administrators, and students about past accomplishment, current program status, and the possibilities for the future. Although the standing of a business-focused program within schools of education is not unproblematic (see, for example, Birema, Cseh, Ellinger, Ruona, & Watkins, 2001), the three programs appeared firmly established and secure in their academic homes, and they thought of themselves as being on the leading edge of education conceived as life long learning by individuals, groups, and organizations throughout the life span and in multiple formal and informal settings. Faculty and administrators voiced a sense of pride for their contributions to their home institutions in terms of enrollments, reach to populations not traditionally served, and breadth of curriculum content. Common goals were focused on the implications of information technology, alternative delivery methods, improving curricula in response to the complexity of contemporary organizations and institutions, and the increasingly global application of HRD. The three programs also showed a strong sense of entrepreneurial sprit, characteristic of dedicated faculty and administrators in an emerging field and relatively young departments. All participants in this study performed numerous roles as researchers, instructors, consultants, and mentors, and invested much time and energy into building and expanding the department, its curriculum offerings, and its enrollments. There was a sense of vibrant energy and optimism about the future of the field and its potential. With this energy, however, come concerns over continuation, especially with departments that will experience waves of retirement among senior faculty without sufficient mid-level academics to move into leadership positions. Careful and long-range succession planning and career development needs to be implemented to assure continuing success.

The sense of energy and passion for the field was shared by graduate students many of whom had selected HRD--after carefully considering alternative academic options--because of the multi-disciplinary curriculum and the holistic and systemic value preference of HRD. Students recognized the limitations of the program's location in schools of education but voiced strong opinions about the high quality and dedicated academic and professional preparation they received. The lack of infrastructure and support, however, may deter qualified candidates to enter the field, thus raising concerns over the lack of future academics in HRD.

The programs' plans for the future were incremental and evolutionary rather than revolutionary and included expanding program offerings, rethinking their policies regarding doctoral admissions and curricula, incorporating instructional and internet-based technology, and expanding the regional, national, and global reach of curricula and program offerings. Here, again, staffing and resource issue surface that will require careful and creative solutions.

HRD is an emerging field in the early stages of its life cycle, and a field that offers great promises in contributing to personal and organizational economic and social progress. This study contributes to new knowledge by examining institutional and curricular characteristics of academic programs and profiling three leading programs in terms of their genesis and current status, norms and values, and visions for the future. It responded to the call for increased knowledge on academic program issued by a panel of senior HRD experts and should offer insight to the

academic HRD community, current and future on salient features, issues, and challenges of three leading US programs.

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Evaluation of a Human Resource Development Degree Program

Dale E. Thompson
Kit Brooks
Elizabeth S. Lazarraga
University of Arkansas, Fayetteville

This study examined students and their work supervisor's perceptions of an undergraduate degree program (with a Human Resource development concentration), specifically how the program benefited them personally and professionally as well as how their organization had gained from their participation. Results identified four specific themes, program expectations, challenges, strengths/benefits and recommendations.

Keywords: Evaluation, Perceptions, Qualitative

The result of a formative evaluation, this study examined participants' perceptions of how a degree program with emphasis in Human Resource Development (HRD) benefited them personally and professionally. Popham, (1993) suggests that affect assessment, which deals with attitudes, values, and interests is an important evaluation use. While not specifically targeting feedback regarding the programs delivery method, compressed video, the evaluation did garner data that related to the increased presence of technology in delivering educational programs. Evaluation and feedback theory provide the theoretical framework for this study. These concepts are intertwined and integral to establishing and sustaining effective programming and performance improvement efforts.

The benefit of assessing educational programs is well documented in evaluation literature. As budgets are tightened and return on investment is closely scrutinized, measurement of individuals, businesses, and institutions is a vehicle for establishing accountability (Fenwick & Parsons, 2000). Perskill and Russ-Eft (2000) note that evaluation has become urgent for both internal and external customers who are asking for evidence of programs effectiveness. They also state that there is a demand for systematic useful evaluation within for-profit and non-profit local, state and federal agencies. The increased demand for evaluation is further complicated by the intangible and abstract qualities of that which is to be evaluated.

In reviewing evaluation literature numerous definitions and related methodologies can be found (Patton, 97; Chen & Rossi, 83; Scriven, 93; Whitmore, 98; Preskill & Russ-Eft, 2000). The literature provides numerous philosophies regarding the very purpose of evaluation. For example, Harles, (1986) considers evaluation to be a structural element of the process of improving the human performance, Human Performance Technology (HTP). Mark, Henry & Julnes (2000) identify four distinct purposes of evaluation as assessment of merit and worth; program and organizational improvement; oversight and compliance; and knowledge development. Preskill and Russ-Eft (2000) discuss the use of evaluation in an instrumental, political and symbolic sense.

Evaluation is often grouped into two distinct categories, formative and summative. Formative evaluation is conducted intermittently with the purpose of giving feedback to learners about their progress and providing valuable information for program developers. Formative evaluation is a recursive process focuses on trying out and revising process as a means of self-correction (Geis, 1986). Stolovich, (1978, 1982) suggests that evaluation is inherent to a well-designed system and functions within that system rather than a discrete act or a step in program development. The formative aspect of this evaluation serves to help determine what programmatic changes are indicated to meet the stakeholders' needs. Summative evaluation occurs at the end of a particular event with the purpose of summarizing what has been accomplished (Fenwick and Parsons, 2000). In addition, evaluation may consist of a look at affect assessment, which deals with attitudes, values, and interests (Popham, 1993). Whether summative or formative, the reason for educational/program evaluation is to improve the quality of the educational enterprise (Popham, 1993).

Webster's New World Dictionary (1970) defines feedback as "a process in which the factors that produce a result are themselves modified, corrected, strengthened, etc. by that result." In discussing systems thinking, Senge (1990) describes two distinct types of feedback: reinforcing and balancing. Human Performance Technology uses the general systems model to describe human performance systems. Both models include evaluation and feedback loops as design elements. Evaluation and feedback contribute to HPT's recursive dynamic, and self-correcting

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functions. Feedback is intended to affect the quantity and quality of performance. If feedback is directed at affecting, the quantity it is summative, while feedback directed at affecting the quality of performance it is formative. While both forms of feedback are critical tools for manintaining or changing performance, either will impact the quality of the behavior or the way people perform (Tosti, 1986). This summative evaluation received feedback that provides information regarding the quality and quantity of various aspects associated with participation in the program.

Background

In response to a comprehensive needs assessment that was conducted to identify the educational needs of business and industry, a degree program with a HRD concentration was introduced in the fall of 1996 at the University of Arkansas. The degree is available only to adults who are working full time, have worked at least five years and have 40 to 60 college credits which will transfer to the University. The program requires a total of 125 credit hours. The general studies section of the degree consists of 56 credit hours of English, science, social studies, fine arts/humanities, math, health and wellness and media/computers. The technical requirement section of the degree consists of 33 credit hours which can be obtained by transferring business coursework, receiving credit for work experience through the testing procedure of the National Occupational Competency Testing Institute (NOCTI) and receiving credit for work experience or industry training by the development of a portfolio based on guidelines developed by the Council for Adult and Experiential Learning (1996), the American Council on Education and the National Program on Non-Collegiate Sponsored Institute. The portfolio is based on Kolb's experiential learning model. This model concentrates on including work experience in to the following 4 areas, concrete experience, observations and reflections, formation of abstract concepts and generalization and testing implications of concepts in new situations, (Kolb, 1984).

The HRD component consists of eight specific courses and a work-based internship/project. The HRD courses are skills and strategies in HRD, theory and principles in needs assessment/evaluation, communication in HRD, strategic design of HRD, theory and principles in adult education, theory and principles in team building, strategies in professional development, and leadership in HRD. The internship is a 12-credit work related project built around the HRD coursework.

The degree program, which began in fall 1996, was structured as a partnership between the University of Arkansas and community colleges throughout the state. The students completed their general studies and many of their technical requirements at the local community college then transferred to the University of Arkansas where they begin the HRD part of the program. The eight HRD courses were offered by interactive audio/video in an accelerated format meeting nine weeks rather than the standard 15 weeks. The courses met weekends to accommodate working adults. Each course was offered at one host site and three or four remote sites. After beginning with approximately 40 students at 4 sites, the program has grown to 10 sites with an enrollment of approximately 175 students, all of which are nontraditional students ranging in age from 25 to 60.

Purpose of the Study

This research explores student and supervisor perceptions regarding the strengths and weaknesses of the undergraduate Human Resource Development program. Specifically, the research question examines participant's feelings about how the program benefited them personally and professionally and how their organizations benefited from their participation.

Methods

This study used qualitative methods as the primary research design. A fundamental characteristic of qualitative research is its in-depth exploration of a phenomenon and its context (Densin & Lincoln, 1994; Fryer, 1991; Patton, 1990). In accordance with qualitative methods, research participants were selected using purposeful sampling. Patton (1990) suggested that the power of purposeful sampling methodology is selecting information-rich cases for the purpose of learning a great deal about issues of central importance to the research. Criterion-based purposeful sampling was used to select individual participants. To be included in the study, the participants had to meet the following requirements: (a) student participants were from the first and second program cohort, (b) student participants had completed all the HRD courses, (c) student participants had the same workplace supervisor throughout the program, (d) student participants consented to be interviewed, and (e) students consented to having their supervisor interviewed. Workplace supervisors were selected if (a) they consented to participate in the

interview, and (b) if they had supervised a student throughout the program. Eighteen students and their supervisors met all of the criteria. This represented approximately 20% of the total program participants. Participants represented the following fields: banking, health care, manufacturing, public utilities, and post-secondary education. Participants represented both supervisory and non-supervisory positions.

Telephone interviews were conducted with each student and their workplace supervisor from the sample. A structured, open-ended interview guide (Appendix A) was used for each telephone interview. The interview guide consisted of questions that explored student and supervisor evaluation of the multi site distance education degree program. Interviewees were instructed as to the purpose of the research and informed how the anonymous information would be used. Consent to participate, interview questions and responses were audio taped with the permission of the participant. Each interview averaged approximately 30 minutes and was conducted by a researcher who was familiar with the program and the instructors, but not familiar with the interviewees. While the researcher had essential understanding regarding the context of the interview questions, she had less bias regarding the participants' responses than researchers directly involved in the program. Both student and supervisor interviews were tape recorded with participant consent. Numerical codes were assigned to each interview to protect anonymity of the participants during data analysis. All interviews were subsequently transcribed and analyzed using QSR NUD-IST (1997), computer-based qualitative data analysis program.

Data Analysis

While the interview guide did not include specific questions regarding the challenges associated with participating in the program or recommendations that students and supervisors had to improve the program, these themes emerged from student and supervisor responses. These "indirect" themes included student and supervisor expectations of the program, the perceived challenges inherent to the program, strengths/benefits of the program, and recommendations for the program.

Data from each interview were coded to identify patterns in the data associated with each theme. Each student and supervisor response has been coded to provide an audit trail that describes the context of the comments. Miles and Huberman (1994) describe an audit trail as a method of logging and describing our procedures and data clearly enough so that others can understand them, reconstruct them, and scrutinize them. The trustworthiness of the study is contingent upon the audit trail being (a) complete, (b) comprehensible, and (c) systematically related to methodological approaches (Lincoln & Guba, 1985).

Results

Expectations

Students identified two major expectations of the program. First was obtaining a Bachelor's degree. All students indicated this was their top priority. They had high expectations about the program because it was associated with a major university with a good reputation. The convenience of the program, the multi site locations through out the state and the weekend scheduling added to their enthusiasm about the program. The second expectation was program content. Students expected to obtain new information and/or skills. They felt the new information would be helpful in their current careers and jobs. They also indicated that they hoped the course content would help them better understand the organization they worked for. They specifically expected to obtain Human Resource theory and apply it to the job by accepting more responsibility, extending current job duties and bringing more knowledge, ideas and creativity to their organizations.

Supervisors supported students obtaining a degree mainly because they anticipated benefits to the job and the organization. They felt the degree would aid the students in managing on-the-job projects, meeting job specifications, advancing within the job/organization, developing better understanding of people, policies and procedures. The supervisors also felt that the content would be beneficial because of its focus on HRD. They indicated they expected the students to obtain a broad background in HR theory, concepts, and principles. They also felt students would be able to apply the knowledge obtained to practice and to utilize the program as a resource for networking in the larger community and with their peers. The supervisors had a strong feeling that the student's job skills would be enhanced. They specifically thought the students would gain in the ability to bring knowledge, ideas and creativity to their organization, learning new concepts that would help their organization and to extend their current duties into the development of additional training within the organization.

Both, students and supervisors expressed some degree of uncertainty with the program. They indicated that they did not know what to expect since it was different than traditional programs. The program content and the distance education method of delivery were unknowns and therefore of some concern.

Challenges

Students reported time as a major challenge to participating in the program. They indicated that attending class on Friday night and Saturday mornings caused conflict with family activities and duties. The extended times of the program, fall, spring and summer for two or three consecutive years also added to the pressure of family and job related responsibilities. The nine-week duration of the weekend classes consolidated course content, which made students rush assignments and add further to an already busy schedule. The added responsibility of attending classes and completing homework in conjunction with family and work related responsibilities made for a time management nightmare.

Students also viewed their own attitudes as a challenge. That is, they were challenged to stay focused and on task, to stay motivated to getting to class and getting the work done. They had to overcome the fear of going back to school after being out so long. Adjusting to the HRD classes was also a challenge. These classes were different from traditional classes because they were designed for the non-traditional student, the adult learner. The design of the classes allowed for more student involvement, participation and group work. Some students indicated that some team members did not participate which created problems since all group members shared a grade. Also the use of technology in the classroom caused concern. None of the students had any experience using the technology that is involved in distance education. They reported that it took time to get used to the cameras, microphones and other equipment in the classroom.

Supervisors reported very little in the way of challenges. They did however; mention that sometimes work schedules and load had to be adjusted to allow for class attendance. They also indicated that they felt the major challenge was on the shoulders of the student.

Strengths/Benefits

Students perceived benefits fell into three categories. First was learning environment. They indicated that the nontraditional nature of the program and students was a positive factor. As nontraditional students they had many and varied experiences and backgrounds which contributed to the overall learning in the classes. They felt that nontraditional students were more serious about doing course work, wanting to do their best, getting things done, not getting sidetracked or off task and working with group activities. Academic teachers and advisors were also viewed as a positive. Students thought that the instructors were caring, knowledgeable, and involved inthe program because they wanted to be and were interested in helping students learn and finish the program. They perceived that they could talk to their instructors at any time about class or professional concerns and felt that the instructors were very good about explaining assignments and other class tasks to the point that they were easy to understand. Students felt that access to the portfolio process, which allowed them to receive credit for prior work experience benefited them by reducing the time needed to finish the degree.

The second category of perceived benefits was personal. Students felt a high degree of personal accomplishment and satisfaction by their involvement in the program. They indicated they had gained skills, knowledge and maturity. The overall personal benefit was gaining a bachelor's degree. Many of them had a long time goal of finishing their degree. They found it very fulfilling to finally obtain a degree.

The third category was personal/professional. The focus of this area was on benefits that were personal but could also be defined as professional. Students felt the program helped them with promotions, pay increased, more job responsibilities, and improving self-concept. However, some students indicated they had received no promotions or recognition from being involved in the program. They viewed the program as helpful in forming networks of other professionals from throughout the state. They felt that this networking helped keep up with the profession as well as gain insight into how different agencies and organizations operated. Students indicated they benefited from the program because it was set at a time and day that did not conflict with work, which motivated them to stay with the program, and enabled them to finish the program more quickly.

Supervisors commended the university and the professors for offering this program statewide to students with such a wide background and experience. They indicated that they admired the students for the time and effort they were willing to put into obtaining their degree. They also felt the class scheduling, on weekends, was a great benefit because it did not interfere with job performance. Supervisors reported that the students increased knowledge benefited the organization through more participation in training and other activities. One supervisor indicated that

several concepts and theories learned in class were integrated into their organization. Others stated that student performance had improved since involvement in the program.

Recommendations

Students made several suggestions for improving the program. These suggestions could be grouped into three categories. First were entrance requirements and program policies. Students indicated their belief that access to the program should be limited to students that had completed the equivalent of an associate's degree. Students viewed this as a minimum requirement because it enhanced the probability of graduating in a two-year period. Students indicated that it was difficult to complete the HRD courses and have general education requirements to fulfill.

Students also suggested there should be separate "tracks" for those who have managerial or supervisory experience and those who do not. They felt this would accelerate the pace of the courses and provide a more homogenous class profile. They felt that students with no managerial experience find it difficult to comprehend the discussions of those who have supervisory experience. Likewise, students with substantial supervisory work history felt that the courses were less stimulating when elementary concepts had to be discussed for those who had no managerial experience.

The second category was teaching methods. Students recommended that the program incorporate more subject matter experts from area business and industry. They felt that this would provide a practitioner's perspective that would be beneficial. They felt that each topic should include the perspective of a full-time practitioner working in that topic area. They felt this would help the content become more relevant. Group work and practice was viewed as beneficial to learning. Students felt that this practice should be extended to each course and teaching at the "technical" level should me minimized. They valued the "hands on" approach and wanted to see it expanded. Likewise, some students indicated that various program parts should have been geared toward more "practical, everyday things" and less emphasis on the book.

The third category was course content. Students indicated that the program should include course work regarding the legal issues associated with HRD. Specifically, they suggested including labor law studies as part of the curriculum. They indicated that this was an area of growing concern for themselves and their supervisors. Some felt that there was too much emphasis on training and needs assessment. Students wanted broader exposure to assessment topics rather than an in-depth view of training needs assessment.

Conclusions

This study speaks to the unanticipated benefit associated with incorporating qualitative data collection in programmatic evaluation. While the interview guide provided a framework for eliciting programmatic information from participants, interviewers took great care not to lead participant responses. Not only was constructive data gathered regarding the perceived effectiveness of the programs structure and content the respondents allowed us to peak into the affective issues that students and their supervisors associated with the program. This in turn gives the evaluators to better understand the program content.

Both students and their supervisors reported that students became a "better worker" as a result of involvement in the University of Arkansas Human Resource Development program. Specifically they agreed that students had more knowledge, focus, confidence and initiative as a result of the program. They indicated that these traits aided students in motivating others, forming networks, understanding work relations/systems, and thinking through problems in a more informed manner.

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Appendix A

Student Interview Guide

1. The concepts / skills that were taught in the HRD program included: communication, leadership, principles of adult learning, instruction and facilitation, needs assessment / research, team building, and professional development. Describe how you applied the concepts that were presented in the HRD program.
2. How has your organization benefited by your participation in the HRD program?
3. How has the HRD program benefited your personally?
4. How has the HRD program benefited your professionally?

Supervisor Interview Guide

1. The concepts / skills that were taught in the HRD program included: communication, leadership, principles of adult learning, instruction and facilitation, needs assessment / research, team building, and professional development. Describe how [name of student] applied the concepts that were presented in the HRD program.
2. How has your organization benefited by [name of student] participation in the HRD program?
3. How has the HRD program benefited [name of student] personally?
4. How has the HRD program benefited [name of student] professionally?

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Assessment of the Graduate Human Resources Development Program, St. John Fisher College

Erin Glanton,
Marilynn N. Butler,
St. John Fisher College

The first formal assessment of the Graduate Human Resource Development program at St. John Fisher College in Rochester, NY is conducted. This assessment from the learners' perspective is examined at five levels: Kirkpatrick's four levels of evaluation and the fifth by Hamblin. The assessment is conducted using self-report information about learners matriculated into the program. The findings suggest that there are significant differences between groups of Learners in Level 2: Learning and Level 5: Ultimate Value.

Keywords: Human Resource Development, Levels of Evaluation, Program Assessment

Academic program assessment is a key element for a college or university's continued accreditation. It also plays a significant role in the status of professional accreditation. Assessment allows academic programs to document the quality and success of their curriculum and identify new opportunities for growth and development (Schwindt, 1995). The purpose of this preliminary study is to conduct a program assessment of the Master of Science in Human Resource Development program at St. John Fisher College in Rochester, New York. This study is a first attempt to establish a model for discovery of the impact that the current curriculum presented in this program-of-study has on the current student population and the alumni of the program. This examination is not designed to validate the data collection instruments used nor is it intended to compare outcomes with other graduate academic programs. It is designed to conduct an academic program assessment utilizing a model typically employed in training evaluation.

St. John Fisher College graduated its first class of six Masters of Science candidates from the Graduate Human Resource Development (MSHRD) program in 1999. These six individuals led the way for what has grown to be an expected graduating class of 17 in the year 2002. Started in fall of 1997, the program is still in its infancy. As with any new instructional program, it requires assessment as an essential component of its development to provide continuous improvement.

Satisfaction with the program, the acquisition of knowledge (learning), the application of learning (behavioral changes), changes in the workplace due to students' behavioral changes, and the benefit's recognized by students' workplace are at the center of this inquiry. Kirkpatrick's four levels of evaluation with the addition of Hamblin's fifth level were used to guide this examination. This framework provides a set of standards that are within the scope of the inquiry.

For the purposes of this study, program effectiveness is determined by the extent to which Learners, defined as students who matriculated into the MSHRD program, perceive themselves as successful. Learners are separated into three groups: (a) graduates of the program; (b) current program candidates; and (c) candidates who matriculated into the program but have not taken a class in the previous year and examined through self-report data. Analyses of the data on these groups are conducted using Kirkpatrick's (1998b) four-level hierarchy of evaluation model with the addition of Hamblin's fifth level of focus. The five levels are Level 1: Reaction, Level 2: Learning, Level 3: Behavior, Level 4: Results, and Level 5: Ultimate Value. This examination seeks answers to six questions:

Q1. Is there a difference in satisfaction levels between the three groups of Learners?
Q2. Is there a difference in perceived learning—skill, knowledge, and attitudes—between the three groups of learners?
Q3. Is there a difference in perceived behavioral changes—both in the classroom and on-the-job—between the three groups of learners?
Q4. Is there a perceived anticipation and recognition of changes, contributions to the workplace learning and demonstrated leadership between the three groups of Learners?
Q5. Is there a difference in career advancement and earnings increases between the three groups of Learners?
Q6. What is the demographic composition of program participants?

Conceptual Framework

Assessment is clearly the preferred term for this process of an academic program. However, the means with which the assessment is conducted is through evaluation; the terms for this study are intertwined. The literature on the two

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terms in the educational context, however, is not consistent. The terms have been defined in varying ways and may be distinctly different, yet one author's definition of one term may be the definition another author uses for the other term.

The key is not in definition, but in how the gathered information is used and its relationship to practices on campus (Palomba & Banta, 1999). It is important to recognize that the terminology has been, is, and will most likely continue to be used in varying, confusing, and sometimes contradictory ways, and that colleges are free to use the terminology they find most suitable. It is within this spirit that this assessment of the MSHRD program is conducted. For the purposes of this study assessment refers to the overall process of program appraisal to determine its effectiveness and value using the means of evaluation. Evaluation is the appraisal of each of the five levels--reaction, learning, behavior, results, and ultimate value--from the perception of the Learner to determine Learner success. The value and responsibility in conducting both (or either) assessment and (or) evaluation is the use of the information to improve the program and benefit the Learner (AAHE, 1996; Farmer & Napieralski, 1997; Haworth, 1996).

Why Assess?

There is no question that the concept of assessment has been around for many years (Farmer & Napieralski,1997; Madaus & Kellaghan, 1992). Since the 1980's, however, there has been increased emphasis to use assessment to improve the quality of learning (Angelo, 1999; Banta, Lunt, Black & Oblander, 1996; Lipschultz & Hit, 1999; Weise, 1992). Students, faculty, courses, programs, departments, and institutions have all been the focus of assessment and evaluation efforts.

The assessment movement is increasingly becoming more important (Donald, 1997; Banta, Black, & Ward, 1999). At the post-baccalaureate level, ensuring quality and improvement through program assessment is somewhat rare (Banta, Black, & Ward, 1999; Haworth, 1996). Ongoing assessment activities should be about improving learning and for the ultimate benefit of the student (Angelo, 1999; Baird, 1996; Palomba & Banta, 1999; Syverson, 1996).

The MSHRD Connection to Evaluation

The selection of the means with which to conduct this assessment by using levels of evaluation is one particularly suited to use for the MSHRD program. Kirkpatrick (1998a) explains:
The four levels are all important, and they should be understood by all professionals in the fields of education, training, and development, whether they plan, coordinate, or teach . . . whether the programs are conducted in education, business, or industry . . . . In human resource development (HRD) circles, these four levels are recognized widely, often cited, and often used as a basis for research and articles dealing with techniques for applying one or more of the four levels" (pp. xv-xvi).

Incorporation of the five levels of evaluation in this assessment study is program appropriate, while seeking to address the complexities of learning with an imaginative and individualized approach, one that reflects the character of the individuality of the program and local conditions (Banta, 1997; Farmer & Napieralski, 1997; Palomba & Banta,1999).

Relevance to the Field of HRD

The pursuit of graduate education is becoming a trend among HRD professionals. However, not all are attending programs that specialize in HRD. For lack of program availability, incompatibility of curriculum with organizational needs, many enroll in programs designed for allied fields such as business, sociology, education, and human services. Thus, it becomes critical for academic programs specializing HRD to conduct various forms of assessment activities to determine whether or not the curriculum meets the needs of the learners and the workplace. Employer sponsored tuition assistance programs scrutinize these programs to determine the return on their investment—will the employee/student learn relevant information that can be applied in the workplace? Individuals making the educational investment must also be satisfied with the experience and, at minimum, believe that they have learned and can demonstrate competence after completing a program-of-study.

Levels of Evaluation

The standard and most prevalent evaluation model in the field of HRD is the four-level Kirkpatrick model (Reynolds, 1998; Rothwell & Sredl, 2000). This model was chosen to guide this study as a first step in program

evaluation for three reasons: (a) it is the most familiar in the field; (b) it is intended to measure the areas of interest to the specified academic institution; and (c) the four levels guide the development of questionnaire domains. Kirkpatrick (1998a) originally introduced his concept of the four levels of evaluation in 1959; although he makes some changes to his guidelines, he currently concludes that the four levels --reaction, learning, behavior and results -- to evaluate training programs have remained the same. Questions associated with each level explored are provided:
Level 1: Reaction. "What did the participants like or dislike?"
Level 2: Learning. "How did the participants change by the end of the program?"
Level 3: Behavior. "How much did the participant change subsequently affected job behavior or performance?"
Level 4: Results. "What are the results produced by behavioral change?"
Hamblin's 5th: Ultimate Value. How do results affect the organization or individual over time? (Rothwell & Sredl, 2000).

Here, we define learning as changes in attitudes, improvements in knowledge, and/or increases in a skill that participants (Learners) experience because they have attended a program (Kirkpatrick, 1998b). Level 2 evaluation measures not only the learning of the program participants, but also the effectiveness of the instructors. If failure occurs, it provides the opportunity to look for ways of being more effective in the future. The third level of evaluation measures the use of learning on the job; in other words, how well did the learning transfer? This study measures perceived behavioral changes--both in the classroom and on-the-job--from the perspective of the Learner. Kirkpatrick (1998b) defines his fourth and final level of evaluation as the final results due to participants' attendance at a program. The Learners' perceived anticipation and recognition of change, contributions to workplace learning, and their demonstrated leadership are measured in this study via the surveys completed by Learners. Hamblin (1974) takes the concept of evaluation to an even higher level than did Kirkpatrick. The ultimate value level or fifth level of evaluation examines the valued ends, which Hamblin equates to financial and economic outcomes--an organization's profit and loss. For the Learner, financial and economic outcomes are most evident through career advancement and earnings increase. Furthering their career is the reason most people undertake the costly and challenging quest of an advanced degree (Baxter, 1993).

Methodology

Population

The population (N = 70) consists of three categories of Learners: (a) graduates of, (b) current candidates for, and (c) candidates who matriculated in, but have not taken a class in the previous year, the Master of Science in Human Resource Development (MSHRD) program at St. John Fisher College. For the purposes of this examination, this entire population was surveyed. Participants in category (a) graduates, are referred to as Program Graduates; participants in category (b) current candidates, are referred to as Program Candidates; and participants in category (c) candidates who matriculated, but have not taken a class in the previous year, are referred to as Program Leavers.

Data Collection

Data were collected using two questionnaires from Program Graduates, Program Candidates, and Program Leavers of the Master of Science HRD. One questionnaire assesses Program Graduates and Program Candidates (Questionnaire 1) and the other instrument assesses Program Leavers (Questionnaire 2).

Questionnaire content and structure. Questionnaire 1 is composed of two sections: (a) 10 questions and (b) 12 agreement statements. The 10 questions asked for demographic information to determine age, race and ethnicity, gender, date of program completion or expected completion, salary upon program entry and current salary or respondents. The 12 statements assessed respondents' agreement using a five-point Likert-type scale: (a) Strongly Disagree; (b) Disagree; (c) Neutral; (d) Agree; (e) Strongly Agree. Here, participants were asked to rate statements regarding content areas presented in Table 1.

Table 1. *Statement Number, Level of Evaluation, and Statement Content from Learner and Employer Surveys.*

Number	Evaluation Level/ Description	Statement Topic
S1	1/Reaction	Satisfaction with the courses in the MSHRD program
S2	1/Reaction	Satisfaction with the quality of the instructors in the MSHRD program
S3	1/Reaction	Satisfaction with the intellectual challenge of the MSHRD program
S4	2/Learning	Level of skill
S5	2/Learning	Level of knowledge
S6	2/Learning	Assessment of attitude
S7	3/Behavior	Transfer of learning to the job.
S8	4/Results	Anticipation and recognition of rapid changes in jobs, careers, work groups, and organizations
S9	4/Results	Contribution to workplace learning
S10	4/Results	Demonstration of leadership in providing strategies and practical solutions to the business challenges affecting the workplace
S11	5/Ult imate Value	Enhanced job/career opportunities
S12	5/Ultimate Value	Increased earning potential/financial benefit

Similar to Questionnaire 1, Questionnaire 2 has two sections: (a) 12 questions and (b) 12 agreement statements. The 12 questions asked for demographic information to determine age, race and ethnicity, gender, date of program completion of undergraduate degree, undergraduate degree major, date of entry into the MSHRD program, date of last course taken in the MSHRD program, number of credits earned in the program, perception of matriculation status in the program, area of employment when they entered the program, and current area employment. Program Leavers were then asked to respond to the same 12 statements assessing their agreement using the five-point Likert-type scale: (a) Strongly Disagree; (b) Disagree; (c) Neutral; (d) Agree; (e) Strongly Agree (Table 1).

Survey Administration

Surveys were administered as unsupervised mail-response-questionnaires. Program Graduates, Program Candidates, and Program Leavers received their surveys in a packet containing a letter of introduction that included consent, instructions for the process to complete and return the survey, and a postage-paid return envelope addressed to the researcher's home. Packets were sent via first-class mail by the US Postal Service.

Data Analysis

Data were analyzed using quantitative and qualitative methods. Descriptive statistics were calculated. ANOVA was employed to determine statistical differences.

Survey Response Analyses

Demographic information for the entire population and each of the three groups was summarized to provide descriptions of their characteristics. Attributes such as gender, age, year of undergraduate degree receipt, and field of work were examined.

Limitations

This study has five primary limitations. First, the population is small. A total of 70 matriculated Learners have entered the program since its inception in 1997. Second, the primary researcher is one of the Learners--a Program Candidate--which leads to the possibility of bias in both the creation of the survey instruments and in the reporting and interpretation of the results of the study. Third, since this is a preliminary examination with the intention of developing a model for program evaluation, the survey instruments used in the study were not tested for content and construct validity. Fourth, data were collected through self-report surveys therefore bias responses are expected. In other words, this inquiry, most likely, reflects primarily Level 1 results. Finally, the questionnaires employed in this examination were not tested for content or construct validity. The purpose of this study was to conduct pilot research that will lead to more rigorous examinations in the future.

Findings

Response Rate

The overall response rate from the Learners is 64.29% (N = 45). The combined response rate for Program Graduates and Program Candidates is 76.00% (n = 38). There was a low number of responses from Program Leavers

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(n = 7). The response rates for this evaluation of the program from Program Graduates and Program Candidates are 86.67% and 71.43% respectively. In contrast, the Program Leavers have a low, but probably more typical, response rate of 35.00%. Program Leavers comprised 20 of the 70 Learners, producing an attrition rate for the MSHRD program of 28.57%. However, 42.86% of the Program Leavers that responded to the survey indicate that they plan on completing the MSHRD program.

Demographic Information

Answering Q6, the demographic data from the study provides a demographic description of the typical MSHRD student at St. John Fisher College. The population is predominantly female, although the Program Candidate group is fairly evenly split. A much higher percentage of the Program Leaver group are female--71.43%. This area is one that deserves further study. It should be noted that the numbers of Learners graduating each year are increasing. This finding is an indication that the program is growing supporting the notion that the demand for master's degrees is increasing in general (Baxter, 1993). This growth in the number of Learners reinforces the importance of assessment as a tool to improve the program.

The population is 80.00% Caucasian with. To date, there are no African American MSHRD program Graduates. This information seems to point to considering ways to increase the diversity of the Learner base with incoming Learners.

The range of ages is dispersed somewhat equally among three groups: (a) the Between 26 and 30, (b) the Between 31 and 40; and the Between 41 and 50 groups, with the final quarter of Learners being either 25 or under or Over 51. This information doesn't focus on the fact that 42.22% of the Learners are under 30. The program is heavily drawing the under 30 Learner.

To date, 92.10% of Learners do complete or plan to complete the program in less than three years, with 68.42% finishing in two years or less. The program seems to fit the need for obtaining a degree in a relatively short time period.

Furthermore, findings indicate that there is an increase in the number of Learners entering the program who are already in the field of Human Resources, either in development or management (i.e., compensation, benefits, labor relations, employee assistance) or in a combination of both development and management. This finding may indicate increasing interest in and acceptance of the program by professionals already in the field. Graduates, based on the responses, are finding jobs in the field. When they started the program, only 23.07% of Program Graduates were employed in the HR field. Now, 61.54% of them are currently are employed in the HR field. There is a less dramatic, but nevertheless actual, shift by Program Candidates moving into HR related positions, indicating that they are finding new positions in the field prior to completing their degrees. It seems logical to assume, based on this evidence, that Learners are realizing enhanced career opportunities by being in the MSHRD program. This outcome is born out in their responses to Level 5: Ultimate Value statements, as well.

It seems reasonable to expect the Program Graduates rate highest in their responses to the twelve statements on the survey (Table 1) and the Program Leavers to rate lowest in their responses to the twelve statements on the survey, with the Program Candidates somewhere in between. The quantitative findings do indeed bear this out overall. Within the Program Candidates group are Learners who began the program recently and have thus far have had one semester of classes. It may be premature to survey these individuals as part of the evaluation. The group of Program Candidates also may contain individuals who may, at some future date, become Program Leavers, deciding to complete the program.

Table 2 presents a summary of means and standard deviations for responses to survey statements by Program Graduates, Program Candidates, Program Leavers, and Learners. Here, responses to all statements for all groups with only one exception were above the midpoint of 3.00, indicating an overall positive measure of Learner success. Program Leavers have the one exception in the area of increased earnings in which they did not rate as highly as either Program Graduates or Program Candidates. It may be reasonable to conclude that increased earnings are a longer-term result of the program. The high standard deviations within Level 3: Behavior and Level 5: Ultimate Results are an indication of the variety within the responses of Program Graduates and Program Candidates, as well as for Program Leavers. All three groups, Program Graduates, Program Candidates, and Program Leavers, had their highest ratings--means of 4.85, 4.46, and 3.86 (which tied with two other statements for Program Leavers), respectively--in knowledge improvement. Level 2: Learning, was the highest rating of the five levels for both Program Graduates and Program Candidates. Perhaps these ratings are tied to expectations of a college education. Program Leavers had their highest rating in Level 1: Reaction, indicating a high level of satisfaction.

For the group classified as Program Leavers, the name is misleading, at least for those who responded. Had more of those that have not taken a class in the last year responded, the results may have indicated otherwise.

Although almost 43.00% of the Program Leavers responding to the survey plan to complete the program, it seems reasonable that there would be a lower rating from the group as a whole when compared to Program Graduates and Program Candidates. Because so few Program Leavers responded, it is difficult to identify any trend in why Learners

Table 2. *Summary of means and standard deviations for responses to survey statements by Program Graduates, Program Candidates, Program Leavers, and Learners.*

		Learners							
		Graduates (n = 13)		Candidates (n = 25)		Leavers (n = 7)		All Learners (N = 45)	
S#	Statement Content	M	SD	M	SD	M	SD	M	SD
Level 1: Reaction									
S1	Courses	4.46	0.66	4.08	0.70	3.71	1.25	4.13	0.81
S2	Instructors	4.38	0.65	4.16	0.55	3.86	1.35	4.18	0.75
S3	Intellectual Challenge	4.62	0.65	4.20	0.82	3.86	1.35	4.27	0.89
Level 2: Learning									
S4	Skill Improvement	4.69	0.48	4.42	0.81	3.71	1.38	4.39	0.88
S5	Knowledge Improvement	4.85	0.38	4.46	0.61	3.86	0.69	4.48	0.64
S6	Attitude Improvement	4.42	0.67	3.72	0.79	3.57	0.98	3.89	0.84
Level 3: Behavior									
S7	Transfer Learning	4.08	1.04	3.79	1.10	3.57	1.40	3.84	1.12
Level 4: Results									
S8	Anticipate Changes	4.15	0.69	3.88	0.74	3.43	0.53	3.89	0.72
S9	Contribute to Learning	3.85	0.80	3.88	0.74	3.57	1.40	3.82	0.87
S10	Leadership Role	4.09	1.04	3.83	0.76	3.29	1.50	3.81	0.99
Level 5: Ultimate Value									
S11	Enhanced Opportunities	3.92	1.12	3.78	0.82	3.00	1.29	3.70	1.01
S12	Increased Earnings	4.08	1.19	3.74	1.09	2.71	1.25	3.68	1.20

Note: The highest rating possible is 5.

leave the program. Obtaining this information through some other means may provide valuable insight.

Although the overall mean ratings for the statements and the levels of evaluation decrease from Program Graduates to Program Candidates and decrease further from Program Candidates to Program Leavers, there is no statistically significant difference between the groups in perceived satisfaction levels; perceived behavioral changes; and perceived anticipation and recognition of changes, contributions to workplace learning, and demonstrated leadership.

Summary Analysis of Research Question

Q1. Is there a difference in satisfaction levels between the three groups of Learners? According to these data, all Learners rated their perceived satisfaction levels highly on the survey.

Q2. Is there a difference in perceived learning—skill, knowledge, and abilities—between the three groups of learners? The results from the ANOVA identified statistical differences between Program Graduates and Program Leavers (Where SS= 4.52, df= 2, MS=2.26, F= 4.36, P= .02) supporting the idea that Program Graduates are perhaps more learned, possessing more advanced skills, increased knowledge, and improved attitudes than Program Leavers. However, Program Candidates who are in the middle and not statistically different from either group. It

seems the best strategy to increase perceived learning for the Program Candidates to continue to move toward graduation and become Program Graduates.

Q3. Is there a difference in perceived behavioral changes—both in the classroom and on-the-job—between the three groups of learners? Findings indicate that there is no significant difference in perceived behavioral changes between the three groups of Learners. Both Program Graduates and Program Candidates rated themselves highly in the area of behavior. It's important to keep in mind that, according to Kirkpatrick (1998b), even if the Learner has the opportunity, he or she may not apply the learning immediately, or indeed, ever. Changes in future behavior need to be measured in subsequent studies.

Q4. Is there a perceived anticipation and recognition of changes, contributions to the workplace learning and demonstrated leadership between the three groups of Learners? The three statements on the survey used to answer Q4 are drawn directly from the mission of the program. The findings show no significant difference in perceived anticipation and recognition of changes, contributions to workplace learning, and demonstrated leadership between the three groups of Learners. Although Program Graduates rated themselves just slightly lower than Program Candidates rated themselves in the means for contribution to learning, the job requirements or workplace situation for the Program Graduate may be a limiting factor.

Q5. What is the demographic composition of program participants? The study finds a statistically significant difference in career advancement and earnings increase between the groups of Learners, the topic of Q5. Program Graduates and Program Candidates, although not significantly different from each other, are both different from Program Leavers. As was mentioned earlier, more Program Candidates are entering the program already in the field of HRD and entering at higher salaries than did Program Graduates. The positive response to statement S12 is verified by the examination of salary information from the demographic portion of the study. While career opportunity and growth cannot necessarily be measured in increased salary dollars, a study of the data shows that Program Graduates have, indeed, advanced their careers and increased their median income by 45.50% since beginning the program. Because Program Candidates are entering the program with higher median salaries to start, future increases may not be as dramatic. On the other hand, graduates of the program have had, at most, two years since graduation. It may be that Ultimate Value takes time to ascertain. Examination of the increase in earnings for Learners is an area for ongoing assessment.

Relevance of Findings

The findings of statistically significant differences between groups of Learners at two of the five levels of evaluation, indicate benefits of the MSHRD program in the areas of learning and ultimate value. Although there are no found significant differences between Program Graduates, Program Candidates, and Program Leavers in satisfaction, behavior, or results levels, the study provides evidence of agreement on all levels of evaluation from both learners, indicating learner success (especially for Program Graduates in learning and ultimate value) and program effectiveness.

Conclusion

Based on the findings of this preliminary examination, we conclude that there are statistically significant differences between Program Graduates, Program Candidates, and Program Leavers at certain levels of evaluation. We further conclude that on all five levels of evaluation-- Level 1: Reaction, Level 2: Learning, Level 3: Behavior, Level 4: Results, and Level 5: Ultimate Value--the Learners, based on their perceived success, rate the program's effectiveness highly. The MSHRD department at St. John Fisher College must keep in mind that in spite of the positive responses in this study, recommendations were offered to improve the program and the department. Thus, they should not become complacent as Schwindt (1995) advises based on his study. Possible program improvements are presented and recommendations for future improvements to subsequent studies are noted.

Developing an assessment program is complex and time consuming (Banta, Lund, Black, & Oblander, 1996; Barker & Folger, 1996; Gray, 1997). Barker and Folger go on to point out that consistency in leadership is a crucial factor. This paper provides an example of a program evaluation design, implementation, outcomes and lessons learned. Assessment is a non-linear, continuing, and circular process (Farmer & Napieralski, 1997; Wright, 1993). This study is the first in the MSHRD program assessment plan, but it is just one part of that ongoing iterative process.

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National Comparison of Graduate Level Human Resource Development Programs

Cheryl. Klein,
Marilynn N. Butler,
St. John Fisher College

The field of HRD is evolving into a discipline that is increasingly recognized in organizations and the educational community. The rapidly changing professional world, coupled with shifting demographics, technological advancements, and opportunities for lifelong learning, has placed high expectations on HR practitioners. In order to provide a standard for best practices, continual assessment and evaluation of the educational preparation for the HRD professional is essential. This study provides benchmarking information for graduate level HRD programs.

Keywords: Human Resource Development, Graduate Education, Accreditation

Human resource and workforce development is increasingly an essential component of an organization's strategic planning processes and overall success. Experienced and educated human resource professionals are needed in this evolving field. In order to prepare individuals to meet the increasing demands of the workplace, developmental and educational opportunities must be available. These learning experiences may take the form of on-the-job training and development, a coaching or mentoring situation, cross-functional training, or formal education. Often, human resource development (HRD) professionals become the stewards over the training, education and development of an organization's workforce. Thus, HRD professionals must be highly competent and well educated themselves. To support this need, the number of academic programs designed specifically for human resource practitioners specializing in training and development, Organization Development and career development steadily increased over time.

This study examines 68 of these programs to determine similarities and differences in program design. As the field of HRD matures, standardization and consistency in professional practice becomes critical. HRD academic programs provide practitioners with foundations by which to practice. Thus, an examination of HRD academic program design is imperative.

The purpose of this study is to compare and contrast graduate level programs in human resource development (HRD). In other words, "How do graduate HRD programs compare to one another with regard to program details, curriculum, admission and graduate requirements, student demographics, and mission statements?" Specifically, programs that include organization development (OD), training and development (T&D), and/or career development in their curriculum are examined.

Theoretical Framework

Organizations in every sector have been impacted by the changing trends over the past 50 years. These changes have increased the need for competent, knowledgeable HRD professionals. Mergers, downsizing, reorganizations, and technological advances have created work environments that are continuously evolving. Trainers, organization development consultants, labor relations specialists, and career counselors are just some of the positions that are becoming needed and prevalent in the modern workforce. In order to develop trained, competent professionals, a combination of experience and education must be applied. A discussion about workforce needs, professional roles and required competencies provides a foundation for this examination.

Workforce Needs Linked to HRD Roles and Competencies

It is important that the HRD practitioner not only be able to adapt to change and diversity in organizations, but to become a champion of change efforts. In order for HRD professionals to be taken seriously and considered credible, a combination of theoretical background and practical experience must be applied to organizational circumstances. In this sense, a distinct educational experience may be the deciding factor in one's competence and broad knowledge. Understanding the needs and expectations that organizations have will enable HRD professionals to assume the role of strategic partner.In order to become effective in an HRD role, understanding the industry the organization serves is a critical component of success. Gaining the attention of an organization's population can only

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be accomplished when one is credible and articulate. The successful professional is able to speak to and work with the culture and mission of both employees and management alike. More recently, understanding technology and the changes it brings to the industry has become imperative. One important role that HRD is increasingly assuming in organizations is assisting in solving internal performance problems (Laird, 1985). In order to become effective in developing solutions to these issues, an understanding of the organization is essential. Weighty expectations come with this involvement in an organization's climate and culture. The HRD function must develop a reputation to be highly responsive, knowledgeable, and continually successful in its undertakings. Frequent and consistent communication is an essential trait for promoting this view of the HRD team. It is also important for the HRD effort to reflect the organization's culture and mission (Rothwell & Kazanas, 1994). This alignment shows consistency with executive management and reinforces the organization's view on how it should support those it serves.

The Role of Strategic Partner. As the field of human resources evolves into the role of strategic partner for an organization rather than "just the personnel office," there is a heavier emphasis on the professionalism of HRD practitioners that was not as prevalent in former decades (Chalofsky & Reinhart, 1988). The ability to address strategic business needs is a concept that elevates the HRD professional to a position of influence within organizations. Unlike the personnel director of years ago, the opportunity to participate in business decisions and advise from an HRD standpoint has been a long sought-after role by the human resource arena. This responsibility must be accompanied by strong problem solving skills and diagnostic capacity. Among these traits, a sense of leadership and the ability to project long-term goals is another critical factor that businesses are seeking in HRD professionals today. More and more, organizations are looking to human resource professionals to participate in strategic planning initiatives (Flores & Fadden, 2000). This reaction raises the bar in terms of skills and abilities that practitioners should hone.

McLagan (1989) lists five key roles that effective HRD professionals must possess. These include competency assessment, performance management, professional development, job design, and career planning. Related literature also notes the link between human resource practices and financial success of organizations (Rynes & Trank, 1999). Organizational culture, employee relations, and organizational learning contribute greatly to the workplace environment, employee attitude and morale, and consequently to customer satisfaction. Focusing on the three primary components of HRD frames the need for advanced degree programs: Training and Development, Organization Development, and Career Development.

Training and Development Trainers come in frequent contact with employees and management staff. The trainer's role is no doubt a highly visible one. Noe (1999) identifies several competencies that trainers must reflect in their interactions. These include industry understanding, adult learning knowledge, feedback and writing skill, objective preparation, knowledge of training and career development theories, delegation skill, coaching, and effective group facilitation. Behind the scenes, trainers must also be able to rely on computer competence, data analysis, research ability, facilities assessment, project and records management, cost benefit analysis, and business understanding.

In response to the shifting demographic of the workforce, changes from traditional curriculum to one based on the theory of multiple intelligences have been found to have a positive impact on learning (Mettetal, Jordan, & Harper, 1997). It is important for instructional designers to be aware of different learning styles and to provide opportunities for the learner to focus on individual strengths in reaching desired objectives. From a strategic standpoint, it is desirable for these training and human performance practices to be linked somehow with compensation (Bassi & Van Buren, 1999). In order to maintain a competitive advantage, organizations must be committed to reward and recognize employees who regularly perform at a higher level after acquiring new skills and competencies. In this example, compensation and training and development practices are connected to achieve maximum success of a joint HR function.

Organization Development (OD). With massive changes in the workplace, considerable attention has recently focused on developing and changing organizations to perform at peak levels. OD "...consists of long-term change efforts directed toward individuals, groups, and organizations that are designed to improve decision making, problem solving, and group or organizational culture" (Rothwell & Sredl, 1992, p. 9). OD consultants may be internal or external professionals asked to function as change agents. A study conducted by Church, Waclawski, and Burke (1996) embraced the idea of OD practitioners as facilitators of change. Here, business leaders identified three critical competencies. These competencies included (a) an awareness and understanding of aspects of organization change management, (b) a style conducive to influencing the organization and its decision-makers, and (c) the capacity to deal with the change process and the ambiguity it brings. Dealing with change can often be demanding by itself and dealing with change inside an organization is particularly challenging to an external consultant. In their research, Church et al found two significant trends in the experiences of OD practitioners. First, a strong positive correlation was made between level and years of experience in the OD field and attaining a higher tolerance for the

ambiguity related to continual change. The second finding showed a significant positive correlation between more academic courses and professional training and a higher tolerance for this ambiguity. These results relate to the state of the field in that ambiguity is encountered in the majority of HRD positions. While practical experience shows to be a critical necessity in implementing and continually dealing with the issues faced in this challenging profession, education is extremely important in possessing the knowledge behind effective HRD efforts.

Career Development. As a result of increased training opportunities and a focus on improving the quality of work life for employees, career development specialists are often needed to assist the workforce in making career decisions. The focus on lifelong learning has shifted the responsibility of individual professional development from organizations to individuals (Hall, 1986). The changing demographic of the workforce has prompted 'flatter' organizations and thus, less chance for traditional advancement. Employees must assess their current positions, career options, lifestyles, and the likelihood of advancement within the organization in selecting a self-directed plan. In this sense, the involvement of the employee and the employer is ideal in achieving the most individualized support of career goals. Employers may offer training opportunities, company certification programs, cross training options, educational assistance, or a career resource center. The career development professional may assist the individual in selecting the development options that are most suited to their specific interests and goals.

In implementing career resource options for employees, organizations should align three primary areas: the company vision, the problem or initiating reason, and any foreseen changes (Koontz, Theis, & Audette, 1998). Executive management and HRD staff must also be involved in the communication of a career resource effort. If career consultants are available for employees, it is essential that these consultants are trained and experienced professionals. An effective career counselor should develop skills in observing, questioning, coaching, feedback, relationship building, and competency identification (Rothwell & Sredl, 1992). Other competencies such as self-knowledge, business and adult learning understanding are necessary to develop a well-rounded ability to assist individuals in their personal and career growth. In career counselor roles, HRD practitioners must possess the experience to effectively interact with employees. However, a theoretical background in career development links practical application to educational knowledge base.

The need for HRD professionals to engage in advanced studies is clear. Moreover, in order for these professionals to function effectively in their varying dynamical roles and responsibilities competently, a comprehensive curriculum that provides a discrete learning experience is required.

Graduate Education for HRD Professionals

The human resource development field involves continual changes and needs in today's professional world. Research suggests that there are several key connections that relate to the importance of competent, educated HRD professionals (Dixon, 1990; McLagan, 1989; Rothwell & Sredl, 1992, 2000). So as to develop competencies that are necessary to become a strategic partner within an organization, HRD professionals are turning toward graduate education to help them achieve a higher-level competitive advantage. Horn (1998) notes that 50% of all graduate students, a higher number than ever before, are 30 years and older. Greenberg (2000) contends that HRD graduate students are often seasoned professionals in the field experiencing an increasing need to earn a graduate level degree. Many of these students have reassessed their career goals and recognized that continuing education is needed to advance and to remain competitive. These findings align with correlating research suggesting that 50% of all graduate students, a higher number than ever before, are 30 years and older (Horn, 1998).

The need for business knowledge in the human resource field is identified as a key reason for choosing management and business oriented graduate programs such as MBA and business management programs (Sunoo, 1999). It is interesting to note that the opportunity and added responsibility of becoming a strategic partner in organization development are cited as examples of increased credibility. The need for credible perception is critical if HRD professionals are to be considered key leaders in their roles within organizations. With such weighty expectations in the minds of organizational leaders, it is important to examine how educational programs develop and prepare graduate students for the expectations that lie ahead in HRD careers.

HRD Specific Graduate Programs

While the pursuit of graduate education is becoming a trend among HRD professionals, not all are attending programs that specialize in HRD. For lack of program availability, incompatibility of curriculum with organizational needs, many enroll in programs designed for allied fields such as business, sociology, education, and human services. Employer sponsored tuition assistance programs scrutinize these programs to determine the return on their investment—will the employee/student learn relevant information that can be applied in the workplace?

Nevertheless, numerous graduate programs claiming to specialize in curriculum for the HRD professional are opening in colleges and universities and gaining popularity with learners and organizations across the United States and around the world. When studying the emergence of specialized academic programs, the consistency of primary variables must be observed. This study analyzæs similarities and differences of these programs by program descriptions, curriculum, admission requirements, and program mission statements.

Related Research. Hatcher (1998) compared demographic data of graduate level programs, focusing specifically on where HRD programs are housed in colleges and universities offering such degrees. His findings show that the two top contenders for HRD programs are the education department at 32.5% and the business management department at 18%. Other departments that support HRD programs include psychology, liberal arts, and technical and applied sciences. Hatcher also looked at practice-related influence, which gathered actual HRD competencies and business and industry requirements. His findings showed that management teams identified nine essential competencies for HRD staff. The following competencies are identified in order of ranking: adult learning understanding, organization behavior understanding, presentation skill, coaching, project management skill, industry understanding, visioning skill, computer competence, and negotiation skill. Theory-related influence to the programs was also studied to address which areas of emphasis embody the programs in respect to theories of HRD and HRM.

In addition, Kuchinke (2001) studied institutional characteristics, student population, and core curriculum. Fifty-five programs were examined, which included master's, doctoral, and certificate programs. Curriculum categories were assigned and percentages calculated. Kuchinke's finding reflected the five most commonly required courses were in the areas of instructional design, instructional delivery, evaluation, adult learning theories, and needs/performance analysis respectively. Several other subject areas received high rankings as well, with 13 out of 31 in the over 50% category. Again, these findings illustrate the diversity of HRD as a field reflected in educational programs.

Methodology

Target Population and Sample

The target population for this study consists of graduate level programs in human resource development/workforce development, career development, organizational development, or training and development. The sample consists of master's level programs housed within public or private colleges and universities throughout the United States.

Sampling Procedure

Purposive sampling was employed to include graduate programs that met guidelines within the scope of this study. Purposive sampling is a non-probability method that follows specific criteria to collect information (Cooper & Schindler, 1998). The programs included in this study are those in the field of human resource development/ workforce development, career development, organization development, and training and development. Each program included one or more of these subject areas in their degree title. Specifically, judgment sampling, a technique of purposive sampling, is used to select each graduate program based on the specified screening criteria. Judgment sampling is a method of selecting those that conform to the specific criteria that the researcher wishes to obtain.

Data Collection

This study is an examination of extant data. To obtain relevant information, admissions, graduate, and/or department offices were contacted by telephone or electronic mail to request program materials. University and college web-sites were also accessed to obtain like information. A total of 193 programs in human resource related fields were initially examined and considered. Only colleges and universities with human resource/workforce development, career development, organization development, or training and development were chosen for inclusion in this study. Programs were selected based on their degree title and curriculum requirements. These criteria were established to narrow the scope of the study to the field of human resource development, specifically to master's level programs.

Data Sources.

Three primary resources were utilized to collect the necessary data. These resources include Peterson's Guide to Graduate Study 2000, http://www.peterson.com, and http://www.gradschools.com. Peterson's Guide was referenced specifically to human resource development programs that were listed. The two primary web-sites were accessed to obtain information regarding graduate level human resource development, career development, training and development, and organization development programs. By utilizing the program information obtained from

these sources, a thorough investigation of university and college web-sites was conducted. Additional program information was requested from career development offices and graduate program departments, through e-mail and telephone communications. The materials sent from these academic institutions included official course catalogs, curriculum requirements, admission packets, graduate bulletins, and college brochures. All relevant information obtained via direct mailings, electronic mailing, or course information available from college and university web-sites is included in this study.

Data Analysis

Data were collected and entered into spreadsheets and tables for organizational purposes. Program details, curriculum, admission and graduate requirements, student demographics, and mission statements were assessed employing conceptual content analysis. In conceptual analysis, a concept is chosen for examination, and the analysis involves quantifying and tallying its presence (Krippendorf, 1980; Palmquist, Carley, & Dale, 1997). The focus here is on looking at the occurrence of selected terms within a text or texts, Here, key phrases and words in the each of the five areas were tracked and counted. These data were then aggregated and summarized using categorization of each topic. This analysis approach allows for summarization of important points in each of the programs examined (Stewart & Shamdasani, 1990).

Limitations

While established criteria aide in developing consistency in reported data, a good amount of interpretation in content analysis is subjective to the researcher's background, experience, and perspective. One challenging aspect of this study is in the mass amount of information that was recorded and summarized. Limitations include availability of complete information for each examined subject area.

Program Details. The general information for this topic area was relatively accessible from admissions offices or via the Internet. One limitation may be the existence of HRD programs that were not listed in primary resources. Programs that do not list in the accessed primary resources would thus not be included in this study. Another similar limitation may be the omission of programs whose degree titles may fall outside the scope of the established criteria. Some of these programs may be consistent with the curriculum of an HRD program, but may be listed under titles such as adult education, human resource management, industrial relations, etc. While every effort was made to include relevant programs, it was necessary to establish limits in order to define the scope of the study.

Curriculum. When analyzing curriculum, several programs offered specific information about the course description. Other programs did not provide such detail. This lack of detail may have resulted in overgeneralization of a course's main focus. In some cases, programs did not offer complete details regarding course requirements or elective options. In such cases, the remaining courses were recorded into the 'other' category. This situation may have resulted in the omission of information. Finally, all research was based on the most current information available. If coursework requirements have changed and not yet been updated, reported data will only include that which was available to the researcher at the time of the study.

Admission Requirements. One factor encountered in the collection of admission requirements was again the detail of information available. While some educational institutions were very specific about admissions processes, others did not provide such detailed information. For instance, one college may list the application, fee, and personal statement as a requirement. Another may note only the application and fee. The personal statement may be a part of the actual application, but since it was not noted specifically, it would not be recorded. Thus the two programs may require the same materials from the student candidate. However if the programs displayed requirements differently, it would appear as such.

Mission Statements. Limitations to this section include the unavailability of mission statements for each program examined. Some degree programs had mission statements for their individual field, while others had only one mission statement for the entire educational institution. Many of the non-specific mission statements were reviewed, but not recorded or included in this study due to their broad nature.

Findings

Of the 68 programs examined, 35 offer master of science degrees, 12 offer master of arts degrees, and 11 offer master of science in education degrees. The distribution of degree titles is similar to degree types with 34 programs with the degree title of HRD, nine programs titled Organization Development, and eight entitled Training and Development.

The department or school in which HRD and HRD-type programs find residence are distributed in eight areas with the majority residing in Education/Human Services/Workforce Development (29), Graduate and Professional Studies (13), and Management/Business (12).This finding is consistent with a similar study conducted by Hatcher

(1998). The minimum number of required credit hours (CH) for degree completion ranges from as low as 30 CH as high as 51 +CH. Here, 36-38 CH is the most common requirement (30 programs, 44%) and 48+ CH required by only three programs (4.5%). Nineteen programs (19%) require 30-35 CH for degree completion and 22.5% (15 programs) require students to take 39-47 CH.

Curriculum

The curriculum analysis includes data collected from 65 programs. While 68 programs are included in this study, two programs were missing specific curriculum information and were therefore omitted from the curriculum statistics. A third program was omitted based on its similarity to a directly related program within the same university. This university currently offers two degrees for the same degree title. One degree is a Master of Science (MS) and the other a Master of Education (M.Ed.). The curriculum requirements are the same for both programs with the exception of the capstone experience. Here, the MS capstone is a thesis, essay, or paper and the M.Ed. capstone consists of an independent study and a comprehensive study. The categories displayed in Table 1 presents percentages of (a) programs offering one or more courses in the subject area; (b) programs requiring one or more courses; (c) programs offering one or more electives; and (d) programs requiring one or more courses and offering one or more electives. Curriculum requirements encompass a variety of subject areas in this study. Twenty-five of the most frequent topic areas are examined. The eight most commonly offered courses are those in training and development, research methods and statistics, organization development, overview of the HR/HRD field, management and leadership, organization assessment/consulting, program assessment, and adult learning. Each of these course categories is offered by more than 50% of master's level HRD programs.

These results are consistent with many common themes presented by Kuchincke (2001) in related research. Kuchincke notes instructional design, instructional delivery, evaluation, adult learning theories, needs/performance analysis, history and philosophy of HRD, instructional technology, and organization development, as the top eight content areas required in curriculum of graduate HRD programs. Some variations to these findings are noted in this study, perhaps due to the different analysis methods employed. Nonetheless, similar themes present themselves. The range in course curriculum demonstrates a wide breadth of competencies that the graduate level candidate must develop over their course of study. An integration of a soft skill set and a business skill set are demonstrated. It is important to consider the impact of this finding to the field of HRD and to academic program and curriculum developers as well as proponents of accreditation measures.

Breadth of Course Offerings. The range in other course offerings is important to address. Group development and organization behavior are two topic areas that are offered in more that 40% of programs. The offerings show that soft skills are still an essential part of the field of HRD. Diversity and technology are more areas that require attention in the workforce today. With the continuous advances in technology, HRD practitioners must be able to adapt and utilize available technological resources. Diversity is increasingly a focus of training due to many differences in cultural background between employees. Coupled with the integration of several generations of workers, diversity plays a big part in the workplace. Other curriculum options involve human resource management topics such as personnel assessment, labor relations, and compensation. While the roles of HRD professionals do not focus on HRM issues, a general understanding is often important to obtain (Nadler & Wiggs, 1986).

Admission Requirements and Mission Statements

Admission requirements most likely reflect the standards of the institution, standards set forth by associated accrediting bodies as well as the department or school of residence. Admission requirements in the programs examined have a range of levels for entrance. All programs require the application and undergraduate transcript. The majority of programs (>60%) also require letters of recommendation and a testing requirement (GRE, GMAT, etc.). Some departments require more extensive detail into a potential candidate's current skills, experience levels, and professional interaction ability. Others assess the bare essentials of an application and transcript. Most programs do set one or more standard of evaluating a candidate aside from the application and transcript. While the field of HRD is a highly visible one in organizations, it is logical to conclude that personal interaction and ability to communicate effectively are essential components to succeed in HRD programs.

The mission statements reviewed in this study demonstrate an integration of goals for HRD programs. Many of the mission points are connected in some way. It is interesting to note the two most frequently mentioned topics in the statements are providing competencies and promoting career advancement for students. The content of mission statements for HRD programs focus on several key areas. Providing students with competencies to design, implement, and evaluate HRD programs is essential in preparing graduates to accept leadership responsibility within their organizations. Not only will this goal provide career advancement opportunities to graduates, it will enable these professionals to guide organizations through transitions and thus compete in a global marketplace. Providing

these competencies promotes advancement of the field of HRD and serves to promote the high quality of work life for employees. The educational setting also allows practitioners to network with other professionals as they share practical information, resources, ideas, and strategies. The combination of educational and professional experience allows the student to participate in an integrated setting and serves to encourage a supportive learning community.

Conclusions and Recommendations

This study provides important information for those working with or attending HRD academic programs to observe. Assessing standards and determining best practices provides room for growth, development, and debate. Those founding new programs need benchmarks and examples of how other programs are designed and areas considered in their development. Established academic programs involved in program evaluation and assessment activities can use this information for competitive analyses or to determine curriculum upgrades or changes. The accreditation debate is an ongoing argument that requires considerable study, evidence, and support.

The Accreditation Debate. While program assessment and continuous improvement is important, the area of accreditation is the subject of ongoing debate among professionals and administrators in the field of graduate education. Accreditation programs are sometimes viewed as limiting or too defining in some areas of specialization (Dill, 1998). Other colleges and universities prefer not to 'answer' to such an affiliation, but would rather strive towards their own mission and project the goals of their stakeholders and their communities. Accreditation, however, does hold an attractive lure for many student candidates and organizations. When evaluating programs based on the prestige of accreditation, it is essential to learn about the accrediting body and its standards (Abernathy, 2001). Some institutions develop their own accrediting bodies to impress prospective students. Looking at admission requirements, testimonials from graduates, and instructors' profiles may provide more clues to make an informed decision about a program.

Table 1. *Summary of Curriculum Requirements for Master's Degree HRD Programs: Percentage of Programs Offering Course Category and Offering Status (N=65)*

Curriculum Course Category Offered	Offering Status: Required	Elective	Both	Req. & El.
-Training and development	75%	60%	23%	8%
-Research methods	74%	72%	2%	0%
-Organization development	72%	58%	18%	5%
-Overview of HR/HRD	60%	54%	8%	2%
-Management/leadership	58%	46%	25%	12%
-Organization assessment	58%	42%	20%	2%
-Program assessment	54%	51%	5%	2%
-Adult learning	51%	46%	11%	6%
-Group development	46%	28%	18%	0%
-Organization behavior	43%	35%	15%	8%
-Technology	35%	18%	20%	3%
-Career development	31%	20%	12%	2%
-Diversity/intercultural	26%	11%	15%	0%
-Strategic planning	23%	15%	11%	2%
-Performance/productivity	23%	17%	6%	0%
-Psychology	20%	12%	9%	2%
-Ethics	18%	8%	11%	0%
-Communications	15%	6%	9%	0%
-International relations	14%	3%	11%	0%
-Personnel assessment	12%	5%	8%	0%
-Labor relations	11%	3%	8%	0%
-Self assessment	11%	6%	5%	0%
-Compensation	8%	2%	6%	0%
-Information systems	6%	0%	6%	0%
-Business	3%	2%	2%	0%
-Other	72%	--	--	--
Final Requirements or Capstone Courses				
-Master's project/paper	26%	8%	20%	2%
-Thesis/research	34%	14%	23%	3%
-Seminar 37%	28%	11%	2%	
-Internship/fieldwork	60%	35%	25%	0%

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While HRD programs have advanced over the last few decades, an accrediting body is not currently in place for the field. Since accreditation is an option for some academic programs, it is important to consider the following questions: Would an accrediting body lend greater recognition and acceptance to the HRD field as a whole? Could established curriculum criteria develop professionals conducting 'best practices' nationwide? Do organizations today warrant and demand competent HRD professionals with common bodies of knowledge, skill, and aptitudes? These questions are currently under investigation in the HRD field and link to the further evaluation of educational programs. This study lays a foundation for the exploration of many more areas of relevance in the HRD field. Educational assessment, leadership competencies, and expectations of the professional workplace are topics that require further research. The constantly evolving nature of the business world and the workforce itself prompt practitioners to continually reassess and reevaluate needs. The academic field must do so, as well, to take a proactive role in the education of professional HRD students.

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A Study of the Organizational Learning Profile

Rae Dorai
Adela J. McMurray
Australian Graduate School of Entrepreneurship
Swinburne University of Technology

R. Wayne Pace
Brigham Young University

The purpose of this research was to determine the content validity and reliability of the Organizational Learning Profile (OLP) instrument that was designed by Pace et al (1998) to measure factors of organizational learning. The 34-item scale was administered to 169 respondents working in both the manufacturing and service industries yielding a response rate of 100%.

Keywords: Organizational Learning, Learning Organization, Validity and Reliability

Organizations acknowledge that learning is crucial for their survival; however, attempts to understand how organizations learn remain obscure even though the 1990s saw a dramatic growth of publications both reviewing and evaluating the concept (Crossan and Guatto, 1996). The literature on organizational learning has viewed the concept from different perspectives and abounds with various conceptualizations and definitions (Nicolini and Meznar, 1995). The seminal definition for learning was provided by Argyris and Schon (1978) who defined it as the process of detection and correction of problems.

Their definition is based on two premises: firstly, that organizational learning is anthropomorphic, that is there is a lack of evidence showing that organizations can learn; and secondly, that problems in organizations do not have permanent solutions and only give rise to new problems. Subsequent definitions have viewed the concept from the content and the process perspectives.

Cyert and March (1963) viewed learning as a change in behavior in response to a stimulus. Fiol and Lyles (1985) defined learning by organizations as the process of improving actions through better knowledge and understanding and agreed that it is essential to include both cognitive and behavioral elements in the definition of organizational learning. Miller (1996) defined organizational learning as the acquisition of new knowledge by actors who are able and willing to apply that knowledge to making decisions or influencing others in the organization. Dodgson (1993) and Crossan (1999) viewed organizational learning as a construct that is used to describe certain types of activity (or processes) that may occur at any one of several levels of analysis, or even seen as a part of the change process as suggested by Schein(1996). Kilmecki and Lassleben (Sadler Smith, 2001) defined organizational learning as changes in organizational knowledge that are induced by information processing and enable an organization to find new ways in order to survive and be successful in new situations.

Organizational learning as defined by Leavitt and March (1988) is routine bas ed, history dependent, and target oriented, meaning that organizations are seen as learning by encoding inferences from history into routines that guide behavior. This definition is expanded in further detail by Nicolini and Meznar (1995) who assert that organizational learning is socially constructed and dependent on a person's ability to transform practical knowledge into abstract knowledge.

Four theoretical views of organizational learning are identified by DiBella (1995): an outcome or economic view, a developmental view, a normative view, and a resource based or capability view. The economic view sees learning as that which accrues to experience and collective production. The developmental view looks at the learning organization as a stage in the evolution of the firm. While the normative perspective looks at an optimal way of achieving organizational learning, the capability view looks at learning as endemic to all firms, which is grounded in individual learning and embedded in the structure of internal relationships.

Huber (1991) looks at organizational learning as shared knowledge involving knowledge acquisition, information distribution, information interpretation, and organizational memory. Knowledge acquisition, according to Huber, is essentially information acquired by the organization while monitoring the environment; distribution, interpretation, and memory involve using information systems to store, manage, and retrieve information. Carrying out research and development is a way to acquire information. Some of the unique conclusions drawn by Huber include the idea that learning does not always increase the learner's effectiveness and learning need not always result in change in behavior. According to Huber (1991) learning occurs when an individual processes information that results in a behavior change.

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Several different approaches to the study of organizational learning have been identified. For example, DiBella, Nervis and Gould (1996) recognize organizational learning capabilities along different learning orientations. Each of these orientations is conceived as a bipolar continuum that reflects the learning processes. In a more recent study, DiBella (2001) goes beyond the individual to address groups such as departments within organizations. He suggests there are seven different bipolar orientations to learning which result in fourteen learning approaches. These learning approaches are measured by the Organizational Learning Inventory (OLI) intervention tool where a group's learning capabilities are identified and may be used in the improvement of the creation, dissemination or use of knowledge to facilitate their alignment with the organization's strategic direction. Like the OLP, the OLI deals with knowledge and learning processes, however it differs from the OLP in that its focus is on organizational group learning and not individual learning.

Watkins, Yang and Marsick (1997) identified five different approaches to organizational learning: (1) the conscious detection and correction of errors, (2) a change in organizational memory, (3) a change in mental models, (4) a culture of inquiry and generativity, and (5) extracting and building knowledge.

Leavitt and March (1988) in their change-in-organizational-memory approach view organizations as learning by encoding inferences from history into routines that guide behavior. Routine-based conceptions of learning assume that the lessons of experience are maintained and accumulated by translating them into routines. In this view, learning is defined as a process rather than an outcome.

Leavitt and March's (1988) explanation of organizational learning is based on three classical observations drawn from behavioral studies of organizations.

First, behavior in an organization is based on routines that are based more on the past than anticipation of the future; second, organizational actions are history dependent; and third, organizations are oriented to targets, which means their behavior depends on the relationship between outcomes achieved to outcomes expected.

The notion that organizational learning results in a learning organization is a taken-for-granted-assumption. The learning organization can be described as an environment in which organizational learning is structured so that teamwork, collaboration, creativity, and knowledge processes have a collective meaning value (Watkins and Marsick, 1993, 1996).

Watkins and Marsick (1996) identify six factors that characterize organizations that move towards becoming a learning organization. These are to create continuous learning opportunities, promote dialogue and inquiry, promote collaboration and team learning, empower people towards a collective vision, establish systems to capture and share learning, connect the organization to the environment and provide strategic leadership for learning.

Sadler-Smith, Spicer and Chaston (2001), using Extant theory, established the relationship between organizational learning and performance, at both the individual and the collective level, by examining the active-passive learning orientations of 300 smaller manufacturing and service firms. Active and passive learning orientations was measured using a prototype scale that consisted of 30 items that measured zero loop learning, single and double loop learning. Cronbach alpha for the instrument was 0.70. The instrument was administered to 1000 owner managers and managing directors of small businesses in the south and west of UK. Size of the business was a variable. The response rate was 30 %. Findings showed a positive relationship between growth and learning orientation. The results further showed that the greater the learning orientation the higher the sales growth. However, there was no significant relationship between growth and core rigidity in business service firms. Sadler-Smith et al's (2001) approach to learning, to some extent, is similar to Pace et al's (1998) approach in that both view organizational learning as a process that may be performance related.

The preceding paragraphs share a commonality in that organizational learning is behavioral and involves action based on experience. However, these organizational learning definitions are based on different perspectives and, therefore, different theoretical frameworks. The major problem is that they appear to lack convergence. This is because organizational learning is embedded in different schools of thought (Bell, Whitwell, and Lukas, 2002). For example, DiBella, Nevis and Gould (1996) take a normative perspective and define learning as a collective activity that only takes place under certain conditions. Huber (1991) on the other hand notes that an organization learns when through its processing of information, it increases the probability that its future actions will lead to improved performance.

Pace (2002 in press, pp. 109-121) views organizational learning as the acquisition, retention, and distribution of information quickly and efficiently through an institution's social and technical networks in order to systematically solve problems and to experiment with new approaches to working and managing to avoid problems in the future.

Theoretical Framework

The theoretical framework of the Organizational Learning Profile is based on the change-in-organizational memory approach described by Levitt and March (1988). They state that "organizations are seen as learning by encoding inferences from history into routines that guide behavior" and that routine-based conceptions of

learning presume that the lessons of experience are maintained and accumulated with routines despite the turnover of personnel and passage of time."

According to Levitt and March, learning is defined as a process rather than an outcome. Knowledge acquisition is the process by which knowledge is obtained. Information distribution is the process by which information from different sources is shared and thereby leads to new information or understanding. Information interpretation is the process by which distributed information is given one or more commonly understood interpretations. Organizational memory is the means by which knowledge is stored for future use. Huber (1991) comments that an organization learns if, through its processing of information, the range of its potential behaviors is changed. This paper reports the development and analysis of an instrument designed to measure factors of organizational learning.

Based on the above framework, this research attempts to answer three key research questions: First, what factors describe organizational learning? Second, can an internally reliable instrument measuring aspects of organizational learning be developed? Third, does the instrument have content validity?

Methodology

The purpose of this study was to further establish the reliability and content validity of the Organizational Leaning Profile. The development and validity of the original instrument may be found in Pace et al's (1998) report.

This study was designed to reevaluate the OLP and test the instrument's reliability and content validity in a different culture and multiple contexts. It was administered to 169 respondents working in diverse contexts ranging from banks, hospitals, insurance companies, hotels, finance, education, and automotive manufacturers. The reliability of the instrument was calculated using the Cronbach Alpha test, resulting in a value of 0.95, a high reliability score.

Sample for the study was a convenience sample consisting of full time employees working in diverse industry backgrounds such as banks, hospitals, insurance companies, hotels, finance, education, and automotive manufacturers. The respondents were drawn from local industry (60%) and the remainder (40%) part -time MBA students. This explains the 100% response rate.

Analyses

Demographic Analysis

Respondents were drawn from diverse industry backgrounds with 67% from service and hospitality and 15% from manufacturing. The majority of the respondents belonged to the managerial cadre (38.4%) and 26.2% were workers. The ethnic background of the respondents was predominantly Australian (59%), but 15% were Asians.

Principal Components Factor Analysis

Responses to the thirty-four items of the Organizational Learning Profile were subjected to a principal components analysis (PCA) using SPSS. Prior to performing the PCA the suitability of data for factor analysis was assessed using the Kaiser-Meyer Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. Orthagonal rotation was chosen because it is the simplest case of rotation of factors, which is viewed as being an important tool in interpreting factors. Results, Tables 1 and 2, showed that the data were suitable for further analysis. Principal components analysis was carried out using Varimax with Kaiser Normalization. The VARIMAX method has proved very successful as an analytic approach to obtaining an orthagonal rotation of factors (Hair et al, 1998)". A forced four-factor solution was obtained from the data. Principal component analysis with variance rotation yielded a total variance of 64.3% explained across three factors.

The PCR revealed the presence of four factors with items having Eigen values exceeding 1.0. The analysis resulted in factors that were slightly different from the original study, but provided support for the original pattern of factors.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.948
Bartlett's Test of Sphericity	Approx. Chi-Square	4243.451
	df	561
	Sig.	.000

Table 1. *Values for KMO and Bartlett's Test*

	Component			
	1	2	3	4
OLP25	.693	.276	.146	.352
OLP26	.690	.344	.147	.197
OLP27	.672	.258	.224	.352
OLP28	.666	.242	.183	.354
OLP30	.615	.146	.391	.288
OLP22	.594	.158	.465	.214
OLP24	.592	.230	.276	.262
OLP23	.585	.313	.415	7.901E-02
OLP29	.553	.351	.130	.442
OLP20	.539	.160	.278	.259
OLP21	.505	.346	.433	.131
OLP3	.164	.721	.358	.299
OLP10	.223	.697	7.515E-02	.276
OLP1	.288	.690	.293	.317
OLP2	.210	.651	.388	.296
OLP4	.275	.592	.515	.173
OLP11	.254	.578	-7.693E-02	.409
OLP31	.422	.577	5.967E-03	-6.368E-02
OLP6	.175	.549	.510	.220
OLP32	.489	.541	.264	.317
OLP5	.353	.503	.399	.296
OLP19	.233	4.074E-02	.700	.197
OLP8	.319	.189	.677	.309
OLP9	.339	.273	.553	.428
OLP34	.476	.437	.521	9.088E-02
OLP7	.325	.271	.521	.381
OLP33	.419	.407	.440	.143
OLP14	.326	.363	7.363E-02	.720
OLP15	.306	.178	.329	.716
OLP17	.287	.301	.276	.666
OLP13	5.951E-03	.215	.517	.582
OLP16	.388	.239	.446	.558
OLP12	.358	.260	.187	.550
OLP18	.268	9.917E-02	.366	.540

Table 2. *Rotated Component Matrix*
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 11 iterations. Source: Authors

Results

Comparisons, as shown in Table 3, between the original OLP factors and the revised OLP factors reveal certain similarities and differences. They are similar in terms of information storage and memory (Items 1-6). They are different in terms of information dissemination and channels of dissemination. In the revised version individual members (men and women) of the organization have a role to play in the

Table 3. Comparison of Items in Factors of Original OLP and Revised OLP

Original Organizational Learning Profile (Pace et al, 1998)	Revised Organizational Learning Profile (Doral and McMurray, 2001)	Original Organizational Learning Profile (Pace et al, 1998)	Revised Organizational Learning Profile (Doral and McMurray, 2001)
Factor 1: Information Distribution and Memory (ten Items 1,2,3,4,5, 6,28, 30, 31,34) **Items:** The organization I work for: 1.has effective ways of getting information of value to organizational members. 2.has effective ways of making sense out of the information it gets 3.has effective ways of storing or remembering the information it gets. 4.has effective ways of using the information that it gets to solve its own problems. 5.has effective ways of learning from its mistakes. 6.understands the concept of a learning organization. 28.encourages us to learn while we are working 30.encourages me personally to make this a learning organization. 31.has information about its history and its past. 34.has effective ways to remember decisions that have been made.	**Factor 1: (Information Sharing patterns includes the following 10 items: 1,2,3,4,5,6,10,11, 31, 32)** **Items:** The organization I work for: 1.has effective ways of getting information of value to organizational members. 2.has effective ways of making sense out of the information it gets 3.has effective ways of storing or remembering the information it gets. 4.has effective ways of using the information that it gets to solve its own problems. 5.has effective ways of learning from its mistakes. 6.understands the concept of a learning organization 10.involves men and women somewhat equally in decisions about how to improve the organization. 11.involves individuals of different cultural backgrounds in decision about how to improve the organization. 31.has information about its history and its past. 32.has policies that encourages us to learn how to improve our work.	**Factor 2: Experimentation and Initiative (Eleven Items: 7, 8, 9, 10, 11, 12, 13, 14, 29, 32, 33)** **Items:** The organization I work for: 7.encourages us to experiment with ways of improving our work. 8.encourages us to regularly make changes in how we do our work. 9.encourages us to challenge the way things are done in the organization. 10.involves men and women somewhat equally in decisions about how to improve the organization. 11.involves individuals of different cultural backgrounds in decisions about how to improve the organization. 12.insists on management practices that involve organization members at the lowest levels in decisions about how to improve the organization. 13.makes changes in organization policies that allow us to do our work in the most effective manner. 14.rewards organization members who work with positive enthusiasm 29.encourages us to take the initiative in making improvements in our work areas. 32.has policies that encourage us to learn to how to improve our work. 33.uses teams as a way to improve the effectiveness of work.	**Factor 2: Inquiry Climate (includes 6 items: 7, 8, 9, 19, 33, 34)** **Items:** The organization I work for: 7.encourages us to experiment with ways of improving our work. 8.encourages us to regularly make changes in how we do our work. 9.encourages us to challenge the way things are done in the organization. 19.encourages us to share information about our work with members of other organizations. 33.uses teams as a way to improve the effectiveness of work 34.has effective ways to remember decisions that have been made.

Table 3. *Comparison of Items in Factors of Original OLP and Revised OLP*

Original Organizational Learning Profile (Pace et al, 1998)	Revised Organizational Learning Profile (Dorai and McMurray, 2001)	Original Organizational Learning Profile (Pace et al, 1998)	Revised Organizational Learning Profile (Dorai and McMurray, 2001)
Factor 3: Achieve Growth Goals (seven items: 15, 16, 17, 18, 19, 20, 21) **Items:** The organization I work for: 15.encourages us to regularly seek new opportunities in the organization. 16. encourages us to do our work in creative and innovative ways. 17. encourages us to aspire greatness in our work. 18. encourages us to go beyond what the organization requires in doing our work. 19. encourages us to share information about our work with members of other organizations. 20. trusts us to do our work in the most effective ways. 21. help organization members learn.	**Factor 3: Achievement Mindset (seven items: 12, 13, 14, 15, 16, 17, 18)** **Items:** The organization I work for: 12.insists on management practices that involve organization members at the lowest levels in decisions about how to improve the organization. 13. makes changes in organization policies that allow us to our work in the most effective manner 14. rewards organization members who work with positive enthusiasm. 15. encourages us to regularly seek new opportunities in the organization. 16.encourages us to do our work in creative and innovative ways. 17. encourages us to aspire to greatness in our work. 18. encourages us to go beyond what the organization requires in doing our work.	**Factor 4: Share and Review Information (six items: 22, 23, 24, 25, 26,27)** **Items:** The organization I work for: 22.share among ourselves ways to improve the organization 23.ep a record of things we do to improve the organization. 24. make sense of the organization. 25.engage in frequent face-to-face information sharing. 26.see ourselves as the top performers in our industry. 27.constantly review the results of what we do to learn from what happens.	**Factor 4: Learning Practices (11 items: 20,21,22,23,24,25,26,27,28,29,30)** **Items:** The organization I work for: 20. trusts us to do our work in the most effective ways. 21 helps organization members learn. 22. share among ourselves ways to improve the organization. 23. keep a record of things we do to improve our work. 24. make sense of the organization 25. engage in frequent face-to face information sharing. 26. see ourselves as the top performers in our industry. 27.constantly review the results of what we do to learn from what happens. 28.encourages us to learn while we are working. 29.encourages us to take the initiative in making improvements in our work areas. 30.encourages me personally to make this a learning organization.

Source: Authors

storage and sharing of information; in addition, this version also highlights the importance of information sharing in creativity and innovation. The original OLP scale has a skewed distribution of items where the majority of the items loaded on factor 1 and factor 2. On the other hand, the revised OLP has an equal distribution of items, thereby showing that organizational learning is a process of influence on the learning practices that prevail in organizations, the achievement mindset of the individuals, the information sharing patterns that occurs across the organization, and the inquiry climate that is created in the organization.

Individual factors of the original OLP and the revised OLP were tested for reliability. Factor 1, Learning Practices, of the revised scale showed a Cronbach Alpha (α) of 0.93. Factor 2, Information Sharing Patterns, had 10 items and showed a Cronbach Alpha score of 0.92. Factor 3, Inquiry Climate, had a reliability score of 0.88. Factor 4, called Achievement Mindset, had a reliability score of 0.90. This shows that the reliability scores of individual factors were high. The names of the revised factors were refined to account for the new clusters of items that were loaded on each of them. Factor 1 was labelled Information Sharing Patterns. The items were analyzed in terms of what type of information patterns they represent. This label is consistent with Huber (1991) and Levitt and March's (1988) definition of organizational learning as the processing of information, and that organizations learn if any of their units acquire knowledge that they recognize as potentially useful to the organization. Factor 2 was labelled Inquiry Climate. Most of the items have something to do with inquiring, challenging, and experimenting as elements of organizational climate. This factor is supported by many studies of organizational climate and creativity (Amabile, 1997). Factor 3 was labelled Achievement Mindset. The items relate to the mindset workers regarding the desire to achieve. The items were grouped on the basis of how they contribute to achievement. This factor is consistent with the premise that individuals are the unit of learning in the organizational learning process (Cummings and Worley, 1997; Argyris and Schon, 1978). Factor 4 was labelled Learning Practices. The items all appear to represent learning practices that contribute to learning. This factor highlights the importance of organizational variables like structure and culture and their role in the organizational learning process.

Renaming the factors creates a more specific view of organizational learning, but at the same time it tends to retain the basic approach visualized when the OLP was originally developed. The next task in developing the OLP will be to refine the items to more clearly reveal each of the basic concepts and to make each item simple to understand and easy to respond to. The factor coefficients appeared to meet acceptable standards (all except one above .50), and the Cronbach Alpha score of .95 is high. In addition, the Test of Sphericity is significant at the .000+ level of confidence.

Conclusion

This study identified four factors associated with organizational learning referred to as Information-Sharing Patterns, Inquiry Climate, Achievement Mindset, and Learning Practices. The findings in this study show that the OLP is a reliable instrument for measuring organizational learning and that its content validity is high. Thus, the higher organization members score on the Profile, the more they are in tune with the principles and practices of organizational learning. Therefore, it may be argued that this study makes a significant contribution to the understanding of organizational learning. The results show that organizational learning is a holistic process that encompasses learning practices, information sharing patterns, an inquiry climate, and an achievement mindset of individuals.

The Organizational Learning Profile approaches organizational learning as a process and focuses on factors that affect learning in an organization. On the other hand, Dimensions of the Learning Organization Questionnaire measures seven dimensions of a learning organization. Both measures describe aspects of some phenomena associated with learning and organizations. The Organizational Learning Profile provides a description of factors that affect learning in an organization; on the other hand, Dimensions of the Learning Organization Questionnaire describes organizations that have evolved sufficiently to be called learning organizations.

The Dimensions of the Learning Organization Questionnaire is based on the model of the learning organization developed by Watkins and Marsick (1993, 1996). It has six dimensions–create learning opportunities, promote dialogue and inquiry, promote collaboration and team learning, empower people towards a collective vision, establish systems to capture and share learning, connect the organization to its environment, and provide strategic leadership for learning. Together, these instruments provide a measure of two facets of learning and its relationship to organizations. Although different in approach, they should have some compatible aspects and provide a more comprehensive analysis of learning and organizations than either does alone.

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Contribution to New Knowledge in HRD

This study contributed to the refinement of the original OLP, and identified four factors that characterize organizational learning. They were labeled Information-Sharing Patterns, Inquiry Climate, Achievement Mindset, and Learning Practices. Future research could further validate the OLP by refining items for greater clarity and administering it to other populations. This research has furthered our understanding of the specific items that comprise the four factors of organizational learning.

The findings suggest that organizational learning and learning organizations may evolve from similar concepts, but differ as a result of the individuals who operate within them and the environment that is created by them. It might be worthwhile to examine the extent to which the OLP and the DLOQ correlate with one another. The findings in this study indicate that the two instruments should not correlate because they measure different aspects of learning: learning in the organization versus organizations that learn, but that the two instruments should be complementary.

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The Ability to Change: A Holistic Model of Organisational Change

Olivia Kyriakidou
Mike Riley
University of Surrey

This paper introduces one set of ability to change measures developed to study whether change occurred during the operational and business culture change process of a single case company. Results show that a supportive learning context as well as employee perceptions of discrepancy, efficacy, personal significance, appropriateness and moderation as the main characteristics of change indicate a strong organisational and individual ability to change and are strongly related to employees commitment to the introduced change.

Keywords: Change, Learning, Measurement Model

In the words of Van de Ven and Poole (1995) "it is of a great challenge for scholars in management and many other disciplines to find ways of explaining, understanding and analysing how organisations change" (p.510). The ability to change and learn is expected to create the major source of competitive advantage for organisations (Armenakis, 1999), since organisations continuously need to change internally, as well as to adapt to changes they meet in their organisational environment. However, although the literature abounds with evidence of change efforts that have gone wrong (e.g., Cummings & Worley, 1997; Dunphy, 1996; Kotter, 1996), theorists have been relatively silent on why organisational change often is unsuccessful. In this sense, there is a growing need to understand the most favourable conditions that enhance organisations' ability for change, the processes of both organisational change and learning, as well as organisational inability to change or inertia, in order to improve change effects.

A feature of the literature is diversity of viewpoints regarding the nature of organisational change. The emphasis on organisational change research has clearly been based on either individual process research (micro-level) or on organisational conditions for change (macro-level). No successful attempts to create a holistic model of organisational change ability have been accomplished, although the elements for its construction should already be in existence. The aim of making a clear-cut separation between change as a process and the elements of a 'changing' organisation (i.e. an organis ation that can exhibit the ability to constantly transform itself), and thus studying them whilst disconnected from each other has not, in our view, furthered the building of a holistic picture. Those concerned with the organisational change processes, imp licitly at least, tend to link organisational change with learning by assuming that the more an organisation develops certain characteristics (such as participative decision-making culture or innovativeness) the more change therefore will take place. Paradoxically, at the same time, they ignore the other factors of the change process, such as individuals' ability to change or unfreeze their cognitive schemas. In our view, the loosely coupled perspectives can offer no more than pieces of theory and cannot create synergy but rather cause conceptual confusion. Therefore, there is a need to develop a holistic model of the organisations' ability to change that operates with clarified and sensemaking concepts.

Moreover, despite vivid discussion and the development of consultation tools for turning companies into changing companies (e.g., Armenakis, 1999; Cummings & Worley, 1997; Senge, 1990), one cannot avoid the feeling that little has been done to develop valid measures for organisational change. This might be due to, but also the reason for, a lack of comprehensive research in this area (Huber, 1991). Another reason for the shortage of methodological discussion and the underdevelopment of measures of organisational change is the fact that the very concept and the process through which organisations actually change still is vague. It is of course impossible to measure the phenomenon without knowing what is.
This paper will attempt to develop a holistic model addressing the ability for organisational change based on the 'grounded' analysis of a case study trying to explore how organisations change. This paper also participates in the methodological discussion on organisational change, by introducing one set of organisational change measures developed to study whether change occurred during the operational and business transformational change process of a single case company.

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What is organisational Change Ability?

According to change theorists, organisational change is initiated and carried out by individuals in organisations (Bartunek, 1984; Porras & Robertson, 1992). Senge (1990) argues that it is only through the learning of individuals that organisational routines are changed and it is individuals who create organisational forms that enable change and facilitate transformation (Dodgson, 1993). Therefore, improving *organisational change ability* should first mean the creation of favourable conditions for change and learning by individuals (Cummings & Worley, 1997). The more extensive the change in the organisation is, the more it calls for a total change in dominant logics and cognitive frameworks, not only in behaviours (Prahalad & Bettis, 1996). In other words, a high degree of a context enabling organisational learning that includes individuals adopting new mental models and corresponding behaviour is needed (Hedberg, 1981; Senge, 1990).

In the change management literature, the concept of learning is there. It is seen as something that increases an organisation's ability to implement planned change and reach its objectives. It is not only through learning of the new but also unlearning of the old that is needed in order to make the change successful. In the organisational turmoil learning reduces uncertainty and thus inevitable also helps in reducing change resistance (Geertz, 1964). Because organisational learning thus improves the organisation's efficiency and performance, it is a vital part of every change process (Cummings & Worley, 1997). In this sense, learning can be seen as a mediating factor between change objectives and business results.

However, one of the shortcomings of the change management literature is that the mechanisms through which change and learning translates into an organisation's performance are ignored (Cummings & Worley, 1997). This is mainly due to the fact that the literature ignores that employees often resist change and learning in order to maintain the status quo and feel secure.

Therefore, according to the present framework, in order to enhance the organisation's ability to change and learn, aspects such as organisational power structure, values and culture, individuals, technology and goals need to be considered and any unfavourable conditions negatively affecting change and learning should be removed before the implementation of change starts. When members of an organisation learn what the change actually requires and participate to its formation, it reduces both collective and personal insecurity (Coopey, 1995). At the same time, when change is implemented and presented in a way that enhances employees' perceptions of their organisational membership (e.g., their organisational identities), it reduces feelings and perceptions of threat. If learning does not occur, employees then develop defensive routines which help them to resist change (Argyris, 1992).

The present paper tries to grasp the core of the organisation's ability to change. From our point of view, organisational change is represented by changing associations, frames of reference and programmes and not just by behavioural adaptation. In order, therefore, to distinguish between change and behavioural adaptation, one needs to know if association development has occurred (Fiol & Lyles, 1985). Consequently, measuring change and learning at one and the same time, without trying to strictly distinguish them from each other, is meaningful because it offers the possibility of seeing the whole picture. We argue that change and learning are also interactive processes, as learning has a mediating role in the change process. Consequently, they should not be isolated from each other (Lahteenmaki et al., 2001).

A Holistic Model of Organisational Change Ability

The holistic and dynamic model of organisational change that is suggested here, brings together the concept of procedural change processes and the concept of learning both at organisational and at individual levels suggesting a constant interaction between both the individual and organisational levels. Reaching an organisational level in the change process means, in practice, organisational changes, which in turn affect the individual level and call for more individual change and learning.

According to this model then, one commences by establishing a necessary context enabling individuals' ability to learn, i.e. supportive conditions and a favourable attitude towards personal development and the adoption of new behaviours (Pedler, Burgoyne, & Boydell, 1991; Tannenbaum, 1997). Individuals' ability and willingness to learn are necessary conditions for organisational change. It is assumed here that learning takes place when the organisation supports the change process in a proper way and obstacles to individual's learning are removed. Within the context of a learning organisation,

employees accept that the formation of the organisation's identity is never closed and that it will develop a series of identities through time that reflect the organisation's and its members' evolving self-concepts.

Learning involves a reintegration of the processual, structural, and content aspects of the organisation (Senge, 1990) promoting thus organisational change and confining perceptions of threat (Argyris, 1990).Hirschhorn (1988) argues that in order to promote acceptance of change, a new work context is needed that challenges the suppression of doubt and ambivalence in the modern organisation and is single minded in the pursuit of its goals and in its one-dimensional understanding of its unchanging and fully formed identity. The changing organisation is characterised by a "culture of being open to others", that "uses doubt as a springboard for learning" (Hirschhorn, 1997, pp 17-18). Only after establishing the supportive context for learning can employees participate in the goal-setting process as well as in the building of strategies by the company.

The ability to change then involves the development and acceptance of new cognitive models, which is facilitated by the learning context. The adoption of new mental models indicates the level of commitment to the new working practices. Individual change of mental models indicates that individual-level cognitive and the subsequent attitude changes are becoming an organisational-level phenomenon. Cognitive reorientation of organisational members is involved at the essence of organisational change. From this perspective, the organisation's ability to change depends not only on the organisation's ability to undergo a significant shift in direction, vision, and values, but also the cognitive ability of organisational members to understand, interpret as attractive and develop a new conceptualisation of the organisation (Smircich, 1983).

The development of new cognitive models supported by a climate of a learning organisation will contribute to change rooted in the organisation through the enabling of changes at the organisational level. Without change at the organisational level, i.e. new procedures, structures, routines, systems and so on, it is difficult for an organisation to be more efficient or change and adapt to environmental changes.

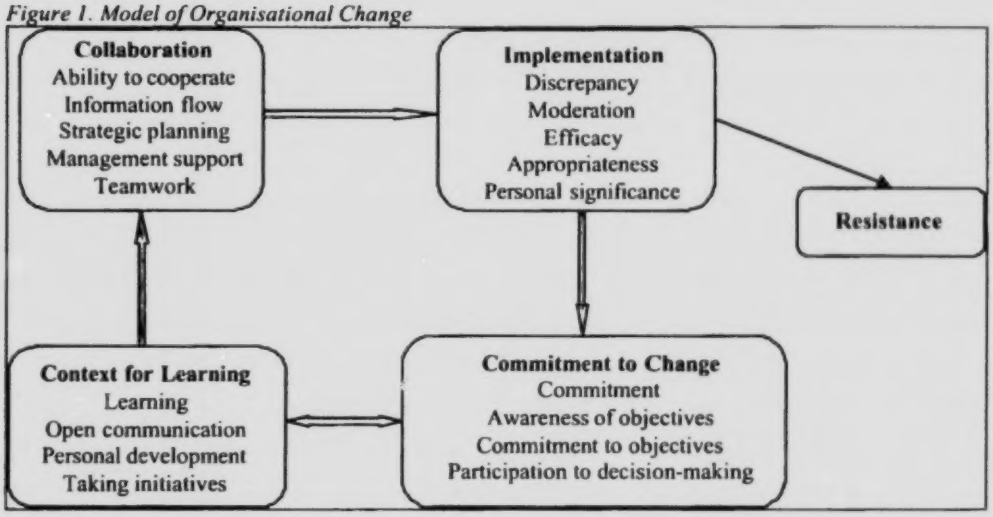
Organisational change is a dialectical process where building the ability to adapt to changes and develop new cognitive models is in dialectical relationship to implementing changes (Lahteenmaki et al., 2001). As argued by Kyriakidou (2001), to be effective, the implementation of change should incorporate at least the following components: a) discrepancy (i.e. we want to change), b) efficacy (i.e. we have the capability to successfully change), c) personal significance (i.e. it is in our best interest to change), d) appropriateness (i.e. the desired change is right for the focal organisation), and e) moderation (i.e. the discrepancy is large enough to create the stress necessary for employees to desire change but the dissimilarities are not so great that change is perceived as unattainable). In this way, the implementation f change further contributes to employees' development of new cognitive models and internalising change.

Internalisation of change however, is not always problem-free even in the most suitable learning environments. Organisational changes are not fully accepted at an individual level. If the implemented change is subjectively interpreted as being threatening it is bound to provoke resistance to change. Respectively speaking, if the change is internalised, the employees involved commit to the mission and relinquish their resistance to change.

When this occurs, internalised organisational change then create favourable conditions for change and learning and enable the ability to adapt to these changes, adopt new behaviours and, thus, change. This is turn relates back to the collaborative setting of strategies and gradually to second-order change in terms of accepting and creating new structures again (Senge, 1990) (see Figure 1).

Referring back to the measurement problem one has to ask, how can we measure this type of ability to change? Here we share the views of Collins (1996) who states that due to the complicated nature of the change process, the existence and effectiveness of organisational change ability cannot be measured directly but only in the long run, through business results. However, it is possible – at least in theory – to measure the process of change step by step. Therefore, focusing on the process and the people instead of the organisational change reveals more of the ability to change itself, no matter how difficult this might be (Starkey, 1996). Building the ability to learn and change should be revealed through attitudes towards change (internalisation versus coercion) within the organisation, whereas the capability to set objectives and collaborate towards their future could be measured through adopted new behaviours (Argyris & Schon, 1996).

Figure 1. Model of Organisational Change



The Study

The aim of the present study has been to develop measures for testing the dynamic model of organisational change, a dynamic model in which the three approaches of change research, i.e. the individual and organisational levels of change and the contextual factors of change, are utilised. An initial battery of measures was derived from theories concerning factors which were expected to enhance the organisation's ability to change (Pedler, Burgoyne & Boydell, 1991; Cummings & Worley, 1997, Tannenbaum, 1997), and from the measures used in previous studies concerning change processes and learning (Argyris & Schon, 1996; Kline & Saunders, 1993; Senge, 1990; Tichy, 1983). These measures assessed attitudes on such organisational conditions as changes in routines, the organisation of work processes, feedback and reward systems, climate and culture, management support, information flow, the openness of communication, participation in decision-making, teamwork, cooperation, HRD and so on.

Participants

Questionnaires were distributed to 224 members of the industrial electronics section of a large electronic communications company based in the UK. In the year before the realisation of the current project various changes had been made to the identity, strategy, culture, and structure of the company. 203 participants responded.

The Materials

The Change Survey was comprised of scales addressing the organisational learning context, the collaborative setting of strategies (Lahteenmaki et al., 2001), the elements of implementation and the development of new cognitive models.

The Organisational Learning Context

The development of a learning context that supports and enhances the individuals' ability and willingness to learn is a necessary condition for organisational change. In our model we assume that change takes place when hindrances to individual's learning are removed and the organisation supports the process in a proper way. Thirty items were developed on theoretical grounds, informed by the learning model (Kyriakidou, 2001), integrating ideas from the literature on communication, trust, learning modes (Pedler et al., 1991), innovation, personal development, and an open culture.

Collaboration

Structural elements constitute the very essence of change as they contribute to the organisation's ability to change, because by them, change is rooted in the organisation. Without new structures, i.e. new enabling organisational arrangements, routines, systems and so on, it is difficult for an organisation to develop an strong ability to change. Eight indicators have been chosen for the measurement of this stage forming a 24-item scale (Lahteenmaki et al., 2001). Some of them include ability to cooperate, ability to use teamwork, fluent and efficient information flow, efficient strategic planning.

Commitment to change

Commitment to organisational goals and strategies is a necessary condition for organisational change. Committed people are apt to accept the new mission which in turn indicates that individual-level attitude changes are becoming an organisational-level phenomenon. Ten items relating to commitment to change process, awareness of business objective, commitment to objectives, and active participation in decision-making were chosen to operationalise the internalisation of change in the form of developing new cognitive models. Commitment to change may indicate that cognitive reframing and the adoption of new cognitive models has been initiated (Albert & Whetten, 1985).

Implementation

The implementation scale included fourteen items for discrepancy, moderation, efficacy, personal significance, and appropriation.

Results

Construct Validity

To ascertain the degree of construct validity and examine the relative independence of constructs within the Change Survey a factor analysis was performed using a confirmatory principal components solution. As it could not be assumed that the factors were uncorrelated, an oblique rotation to simple structure was specified. The analysis predicted and yielded five factors, converging in 16 iterations, explaining 53.45% of the variance within the data. Only four of the five factors were meaningful in psychological terms, and moreover, did not in the main confirm the predicted factor structure or item composites. Factor 1 accounted for 29.7% of the variance and comprised 25 items. The highest loading items were about tolerance of discontinuities, open communication, personal development and innovation. The factor was labelled 'The Learning Context'. Factor 2 accounted for 7.8% of the variance, and comprised 17 items predominantly about collaboration and setting a future together. It was labelled 'Collaboration'. Factor 3 accounted for 6.3% of variance and comprised 11 items pertaining to change implementation and was thus labelled 'Change Implementation'. Finally, Factor 4 accounted for 5.3% of variance and comprised 8 items pertaining predominantly to 'Commitment to Change'.

Reliability

The internal consistency of items comprising each factor was assessed using α Coefficients for each of the change factors. In all instances, satisfactory coefficients of either .70 or above (Kline, 1996) were obtained making it viable to compute an average score for each factor or item composite.

Concurrent Validity

All composite items were intercorrelated prior to the appliance of linear regression analysis to ascertain the degree of covariance across the data.
Table *1* reports the obtained bivariate correlations. In summary, the factor Learning Context was found to correlate positively with the factors labelled Collaboration, Implementation and Commitment. Collaboration correlated positively with Implementation and Commitment and finally Implementation correlated positively with Commitment to Change.

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Table 1. Correlations across variables

	Learning Context	Collaboration	Implementation	Commitment
Learning Context		0.175	0.477**	0.444**
Collaboration	0.175		0.259**	0.293**
Implementation	0.477**	0.259**		0.506**
Commitment	0.444**	0.293**	0.506**	

To identify the factors which best predict the development of commitment to change, a regression analysis was carried out using the Enter method. This method was selected as the most appropriate as a calculation of bivariate correlations indicated the existence of significant covariance between a number of the identified factors. The regression analysis took the 'Commitment to Change' ratings as the dependent variable. All the other independent variables were entered into the regression equation. These variables were found to account for 35% of the overall variance, as the regression analysis produced an adjusted R2 value of .348, $F = 5.772$, $p<.001$, d.f. = 12.95 (these are the properties of the predicted model identified). The β weights (indicative of the proportion of this 35% each factor accounted for) for each factor are provided in Table 2.

Table 2. Results of Regression Analysis

Predictor factor	β weight	P-value
Implementation	0.477	P<0.05
Learning Context	0.321	P<0.05
Collaboration	0.223	P<0.05

The above table shows that the best predictor of commitment to change – as independently assessed – is the mode of implementation and to a lesser extent the learning context and the degree of collaboration. More analysis to indicate the specific effects of the sub-factors within each scale will be performed.

Discussion

In this article our main goals was to uncover the organisational elements or factors that enable change and enhance the organisations' ability to change. Suggested elements of organisational change have been introduced by various practitioners and researchers, although a clear verification through empirical research of these elements is still scarce. Most of these contextual factors of learning and change are expected to improve organisational change ability by sharing knowledge (e.g., information systems, shared visions and team learning). However, one has to recognise here that organisational members do not necessarily share one common frame of reference, but each have their own history-bound frames of reference. The individual is emphasised here also because the question of empowerment of the individual is a crucial one in this context. In order to increase the empowerment of the individual, attention is focused on organisational culture and leadership, structure and HRM questions. Organisational change can be realised or prevented by different organisational elements of factors.

Finally, the present paper has also introduced one possible set of measures and offered suggestions for the measurement of an organisation's ability to change. According to the understanding so far, when an organisation's ability to change is evaluated using these measures, the following interpretative rules could be applied. If indicators on each of four three levels are strongly positive using the scales mentioned here, the organisation then shows a strong ability to achieve second-order change (Bartunek, 1984). Individual and organisational change takes place at the same time as the development of the context and conditions needed in the future. Conversely, when all indicators are negative, the organisation in question cannot be considered a changing organisation. This model however, is based on one single empirical study and should therefore be re-tested, by gathering more data from different change processes in other organisations.

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Integrating an Interactionist Perspective into the Theory of Organizational Socialization

Monica M. Tuttle
University of Minnesota

The prevailing theory of organizational socialization, presented by Van Maanen and Schein, describes activities used by organizations in the socialization of employees. Some argue this theory does not address individual differences as affecting employee responses to that context. This paper discusses the viability of integrating a more inclusive perspective, called an interactionist perspective and provides implications for HRD in the research and discovery of the phenomenon of organizational socialization.

Keywords: Socialization, Interactionist, Theory-building

In a society plagued with shades of gray in each life situation, some squint to make out the black and white of it, while others embrace and mull over each shade of cloudy gray. Those that are determined to differentiate the thin line between the black and the white, inevitably end up falling victim to a dualistic argument, such as nature versus nurture or upholding corporate values versus pursuit of profit. When a dualistic argument is exposed, individuals mass on either side of the debate, feeling strongly about one side. It has been stated that when one only sees the dualistic nature of circumstances, he or she falls victim to the "tyranny of the OR". Conversely, when one is able to discard the dualistic argument and pursue knowledge along both avenues he or she achieves the "genius of the AND" (Collins & Porras, 1994). Collins and Porras state that organizations that have been successful, profitable, and have shown longevity, are able to achieve the "genius of the AND."

This paper will explore one particular dualistic argument that has surfaced concerning the topic of organizational socialization. In its most general form, organizational socialization looks at the context that surrounds an individual's adjustment process during transitions into and within the workplace, with the ultimate purpose for the organization being to facilitate the individual becoming a contributing member to the cause. The black and white argument surrounding the topic is whether an individual's prior socialization experiences, or personal differences, are relevant to the socialization of the individual within the organization. Those who would argue individual differences are not relevant look for the most invariant components of the phenomena and seek to construct the theory around those components, hoping that the propositions will transcend individual differences (Feldman, 1981; Van Maanen & Schein, 1979). Moreover, incorporating individual variables reduces the efficacy and precision of the theory by creating a situation of relativism. This means that if one believes that all individuals have their own experiences and differences, that there can be no conclusions or patterns derived about human phenomena, thus making it very difficult to create a theory about anything. Those who believe individual differences should matter argue that one cannot make conclusions about individual responses to socialization efforts without first understanding their previous socialization experiences. This view is called an interactionist perspective (Jones, 1983; Louis, 1980; Ostroff & Kozlowski, 1992). Interactionists would argue that it provides a more inclusive lens through which to analyze the resulting responses to organizational socialization tactics.

The topic of socializing individuals to their host organization is of utmost importance to the field of Human Resource Development (HRD). Organizations today consider human knowledge, human expertise, in effect, human capital as the constrained resource in today's business economy (Boudreau & Ramstad, 1997). The ability to attract, develop, and maintain the right human capital for one's organization is viewed as a powerful strategic advantage. One might ask, does an organization have to be able to pinpoint and bring in the perfect talent to accentuate the organization, or can the organization itself mold the individual to fit its needs? The prevailing theory of organizational socialization suggests the possibility that organizational tactics can be used to affect the incoming talent in a fashion that makes them more valuable to the organization. The entire process of actions taken by the organization during an employee transition to ensure effective adjustment is called organizational socialization. Facilitating this process effectively to help ensure strong performance at the individual, process, and organizational levels is paramount for the HRD professional. Researching the units, framework, and propositions about this theory so that it may be used in practice, is paramount for the HRD scholar.

The purpose of this paper is to examine the viability of integrating an interactionist perspective into the prevailing theory of organizational socialization, in effect magnifying the shades of gray to get rid of the dualistic argument that exists now. First, it will provide a description of the prevailing theory of organizational socialization

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presented by Van Maanen and Schein (1979) by delving into the propositions concerning organizational action and resulting individual responses. Second, this paper will further present the interactionist perspective and how some theorists have reconciled the criticism of creating a relativist situation. Third, this paper will present some of the advantages and disadvantages that exist for integrating an interactionist perspective with organizational socialization theory. Finally, the author suggests possible research directions for the field of HRD.

Prevailing Theory of Organizational Socialization

The interest in the topic of socialization in the workplace stemmed from a concern about matching individuals with organizations to reduce the amount of unnecessary turnover, costing companies much time and money (Wanous, 1980). The field of Industrial Psychology focused its attention on the organization's perspective about how to reduce this turnover effect, tackling topics such as measuring individual aptitudes, skills and abilities, personality, as well as job and task analysis, recruitment, selection, job placement, and training (Wanous, 1980). The work on socialization took this information and started to construct schemes for determining their combined affect on individuals, Van Maaenen and Schein were some of the first to put together a comprehensive picture of the phenomenon.

Prior to the publication of Van Maanen and Schein's theory article in 1979, each published several works concerning organizational socialization (Schein, 1968, 1971, 1978; Van Maanen, 1976) which built off of previous research on socialization, work adjustment, and career transitions (Berlew & Hall, 1966; Brim, 1966; Manning, 1970). Therefore, while not the first authors to address the topic of socialization in the workplace, Van Maanen and Schein were forerunners among those attempting to formulate a coherent description of organizational socialization in such a way as to facilitate the empirical research to come. In their article they state, "we offer the beginnings of a *descriptive* conceptual scheme which we feel will be useful in guiding some much-needed research in this crucial area [...] we are interested consequently in generating a set of interrelated theoretical propositions about the structure and outcome of organizational socialization processes" (Van Maanen & Schein, 1979, p.214).

The theory itself explores the socialization context created by the organization by the tactics it uses and it also looks at the response from the individual to this context. However, the gap that remains is that it does not examine is the actual process of adjustment an individual would go through during that time of organizational socialization. The theory illuminates the organization's actions and the individuals' response; yet, a large black box remains in the place that would show the activity in the middle, the activity in between receiving the organizational context stimulus and the resulting response. In essence, Van Maanen and Schein (1979) argue in their theory that the experience of organizational socialization, given a predetermined set of organizational context variables, is a relatively invariant experience for the individual. Black and white—organizational context variables are relevant and individual differences are not (see figure 1). The units of the theory are described below.

Figure 1. Representation of the Prevailing Theory of Organizational Socialization

Five Units of the Theory of Organizational Socialization

Van Maanen and Schein (1979) describe several elements of their theory, which can be loosely grouped into five general units. Admittedly, this brief presentation does not do justice to the elegance of the entire theory, but it is

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necessary to frame the rest of this discussion. The five units can be labeled as: (1) targets, (2) agents, (3) process, (4) content, and (5) role responses.

Targets. The targets of the socialization process are individuals encountering adjustments in their careers, either entering a new organization or making changes in their functional, hierarchical, or social roles within the same organization. At these boundary transitions these individuals are most vulnerable to the changes they will encounter and most receptive to the socialization tactics employed by their host organization. It is an underlying assumption of the theory that individuals encountering these types of workplace changes are faced with some level of anxiety due to the change and are driven to learn the functional and social requirements of their new role in an attempt to reduce that anxiety. Individuals must acquire knowledge of what is expected of them not only in their functional role but as a member of a new cultural surrounding.

Agents. The agents of the socialization process are the existing employees within the organization. Their decisions about how to construct socialization experiences for the targets determine the socialization tactics, whether formal or informal, used by the organization. Additionally, existing employees interact with the targets, consciously and unconsciously affecting that individual's experience. Part of the purpose of this paper is to argue that the targets themselves are also their own agents of socialization. Many authors have begun to argue that the individual is not passive in this process (Jones, 1983, 1986; Morrison, 1993; Schein, 1968, 1971) and that most individuals actively seek out materials and draw on personal experiences to help them adapt to their new surroundings.

Process. Van Maanen and Schein view the organizational socialization process as one that occurs continually over the working life of the individual, as he or she enters the new organization and as he or she makes various transitions within that organization. The authors show that the employee experiences movement along three different aspects of his or her role in the organization. First, employees are designated to be in a functional role. Learning the different requirements and expectations of that role are one aspect of *functional* socialization. Second, employees are hired into the organization at a certain hierarchical level. As employees adjust and gain experience, they increase their *hierarchical* socialization. Finally, employees are faced with the need to interact with the social fabric of the organization, which affects their level of *inclusion* socialization. Each organization will differ in the number and types of boundaries that exist given its societal, industrial, and organizational culture contexts.

Content. As Van Maanen and Schein are viewing the process primarily through the lens of the organization, the idea of content refers to any organizational action that drives the process. In essence, the context for socialization is created by all of the formal and informal activities and the conscious or unconscious messages that are delivered by the organization. Van Maanen and Schein (1979) argue, "*what* people learn about their work roles in organizations is often a direct result of *how* they learn it" (p.209). In other words, the tactics organizations use can relate to what messages transitioning employees will retain about their role, the culture of the organization, and how they fit in. The authors present their conceptualization of several tactics in the form of six continuums, each showing an extreme on either end of the continuum. They are: (1) collective vs. individual, (2) formal vs. informal, (3) sequential vs. random, (4) fixed vs. variable, (5) serial vs. disjunctive, (6) investiture vs. divestiture.

The first continuum of *collective* and *individual* tactics refers to the way in which the transitioning employees are either grouped together for a common socialization experience, or are isolated from one another to be paired up with a more seasoned member for their socialization experience, respectively. Referring to the second continuum, organizations that use *formal* tactics have clearly defined activities for transitioning employees that separate them from existing members. The third continuum of *sequential* versus *random* tactics refers to the way in which activities for the transitioning employees are either structured sequentially, or not structured at all, respectively. *Fixed* versus *variable* tactics refer to the degree to which there are definitive time frames established for the socialization process. The fifth continuum of *serial* versus *disjunctive* tactics refer to whether or not transitioning employees are groomed by their predecessors, or if they have no one in the position to walk him or her through the way it should be accomplished. The final continuum, *investiture* versus *divestiture* tactics refers to the degree to which the organization supports or attempts to break away from individuals' prior socialization experiences and identity.

Role Responses. The final unit of the theory is the outcome of the socialization process. Logically, the more proximal outcome of the process would be the level of socialization as measured by the response of the individual. This response could be individual perception (Chao, O'Leary-Kelly, Wolf, Klein, & Gardner, 1994), internal changes in the social construction of self (Schein, 1971; Wanous, 1980) or behavioral changes (Van Maanen & Schein, 1979), all of which are either effective or ineffective for the new role. Because Van Maanen and Schein were looking through the organizational lens, they chose to focus on outwardly observable behaviors from the individual. These were termed *role responses*. The possible role responses were grouped into a few categories; the responses were either custodial, meaning compliant, or they were innovative. If the transitioning employee accepts the socialization process and its tactics without question, the response is determined to be a *custodial* one. However,

if the transitioning employee feels that some of the values, norms, or practices do not align in some way with his or her ideas, that individual will likely question and want to make changes. If the individual's response is to make substantive improvements or changes to the "knowledge base or strategic practices of a particular role" (Van Maanen & Schein, 1979, p.227) then the response is termed *content innovation*. However, there can also be an almost complete rejection of the organization's socialization process and the practices of his or her role. This role response is termed by the authors as *role innovation*. The authors argue that organizations benefit from the response of content innovation. Conversely, organizations are vulnerable if they are only able to see custodial responses, which would limit the possibility of progress, or role innovation responses, which may eat away at the very core essence the organization wishes to preserve.

In their theory of organizational socialization, Van Maanen and Schein are not proposing that individual variables do not play some role in how the process unfolds. However, they are arguing that the organizational variables supersede the individual variables, due in part to the drive to reduce anxiety through absorbing the immediate information presented by the organization. The authors make the decision to focus their theory building efforts on aspects of the organizational socialization experience that transcend organizational, individual, cultural, and societal differences. The authors hoped to provide a theory that was not only an attempt to model some aspect of the empirical world but also one that would have practical utility in the world. As stated previously, there are scholars who have started to argue that such a perspective is not possible, that the theory is not complete without taking into account individual variables (Jones, 1983; Morrison, 1993; Ostroff & Kozlowski, 1992).

Defining the Interactionist Perspective

Researchers such as Jones (1983) argue that an individual's, "subsequent orientation towards the organization cannot be adequately explained until the socialization process is analyzed from an interactionist perspective in which newcomers are accorded an active role in mediating personal and role outcomes" (p. 464). This perspective argues that analysis of the socialization process cannot be complete unless three things are taken into consideration, "(1) the effects of individual differences and (2) the effect of the attributional process involved in organizational learning" (p. 464), and (3) individuals as active participants in their own socialization experience.

The way these factors interact during the process of socialization can be likened to a game between the target employee and the other existing members of the organization. Jones (1983) describes some elements of this interaction. To begin, the individual learns patterns of behavior and develops values through experiences with work and through interactions with others in life. Now, faced with a boundary transition, either entering a new organization or changing roles within the organization, he or she calls upon past knowledge and patterns to deal with the surroundings. The individual monitors the surroundings and the existing members looking for clues about norms and values; the individual makes a first move based on attributions he or she has made about the surroundings.

The game continues with the reward and punishment contingencies from existing members based on the behavior of the individual. Existing members do not always have the same perception of organizational reality and, therefore there is often a conflict of meaning of intended behavior and the perceived behavior. The individual goes through a sense making process, first analyzing his or her own behavior, second, analyzing how others perceive the behavior; the individual makes a second move based on the perception of acceptance or non-acceptance of the first move. Often the discrepancies in behavior and organizational norms are worked out through these interactions. However, it is not necessarily so; there is the possibility that the individual and existing members are never aware of the disparities between their worldviews (Brim, 1966). The individual's previous notions of acceptable behavior are what will continue to guide actions. In sum, while individuals may be subjected to the same organizational context of initiation or orientation content, the way in which they experience that context may be greatly divergent.

Can These Perspectives be Integrated?

The above discussion has presented, in an abbreviated form, the foundational theory of organizational socialization presented by Van Maanen and Schein (1979), as well as theory development by Jones (1983). While perhaps having rival or competing theories around the same phenomenon is not a bad thing, it makes sense to consider each thoroughly, both separately and in concert, to see if they are truly rivals, or whether a "genius of the AND" can be achieved by combining the elements of each to explain the same phenomenon. So, the questions are:

1. What are the advantages and disadvantages of hailing one perspective as the most accurate depiction?
2. Are the two points of view even different enough to warrant being called rival theories?
3. If not, what are the ways in which the two theories can be merged to work in concert?

To address the first question, if the field of HRD has to decide on one theory in order to make more headway in

research and practice, there would be consequences of choosing one perspective over the other, such as (1) theoretical, (2) moral, and (3) practical consequences.

Theoretical Consequences. One of Patterson's criteria for assessing a theory is *comprehensiveness*, meaning that a theory should be complete and include all data that are known (cited in Gradous, 1989). If the theory of organizational socialization does not take into account all of the necessary variables, such as an individual's previous socialization experiences, then perhaps it does not meet this criteria for being comprehensive. Using the criteria of comprehensiveness, those seeking to utilize the theory of organizational socialization in their workplace would benefit from this broader description of the phenomenon.

Moral Consequences. Organizations may view the process of socializing employees as a means to an end, the end being an individual who is an effective contributor to the organization. Kantian ethics state that humans may be viewed as a means to an end, as we would use a taxi cab driver to take us to our destination; yet, it states humans should not be treated as a means to an end (Beauchamp & Bowie, 1997). Treating each human that walks through the door as part of a homogeneous pool that would all respond to stimuli in the same manner and could therefore each be molded and crafted to the organization's desire, would be treating humans as a means to an end. Valuing each individual for his or her experiences and understanding how those influence their current experience of socialization, more closely satisfies Kantian ethics. Thus, excluding research and discussion around the affects of individual differences on socialization would be to ignore possibly significant variables, and would continue to allow organizations to think their actions were the only factors that would determine a socialization outcome.

Practical Consequences. While theoretically and morally inclusive, using an interactionist theory in the workplace brings about several concerns about its practicality. Organizations trying to incorporate this more comprehensive perspective may bog down already effective socialization processes, whereby decreasing the effectiveness curve and increasing a cost or time curve. It may not be practical or fiscally prudent to design and administer assessments to transitioning employees to determine the intricacies of their individual differences or their previous socialization experiences.

From the above discussion points, it is clear that integrating an interactionist perspective into the HRD rhetoric for organizational socialization would mean more research. However, it is the opinion of this author that integrating the two lenses means seeing the phenomenon more clearly. Van Maanen and Schein's (1979) lens through which to view the phenomenon of organizational socialization could be described as a process of formal and informal activities by the organization to direct the individual in the process of adjustment to and acquisition of roles, tasks, knowledge, and values. However, the lens Jones's (1983) work describes is one in which individual context variables play a large role in how the activities by the organization influence the individual's process of adjustment to and acquisition of roles, tasks, knowledge, and values. Upon consideration on how to answer the second discussion question, it is apparent to this author that these two lenses are looking at the same phenomenon only from two different vantage points. In effect, the work of Van Maanen and Schein (1979) and the work of Jones (1983) are not rival theories; rather, they are merely two sides of the same coin. In sum, the theoretical and moral consequences should overtake the practical consequences in the initial phases of discovery. Once such information is available, how practitioners allocate corporate dollars to improve socialization processes should be up to them.

Merging the Prevailing Perspective with the Interactionist Perspective

Figure 1 visually represents the gaps that remain from Van Maanen and Schein's (1979) theory. Their theory illuminates the different boundary movements that individuals experience throughout their careers entering into and moving within an organization. The theory explains different socialization tactics employed by organizations during these boundary movements. It also explains the behavioral responses that can be expected from individuals in reaction to the organizational socialization tactics. The large black box represents what is missing from this theory, the individual experience of socialization and all of the intervening variables. In effect, merging Van Maanen and Schein's (1979) work with that of Jones's (1983), would help to illuminate what is inside the black box. Bringing to light the individual experience of socialization, would have to include two elements, (1) a general stage theory model of an individual process of adjustment, and (2) an explanation of the various effects of human differences on that process. Some progress in the literature in these areas is presented here as possible material to advance the interactionst discussion of organizational socialization.

Necessary Element 1: A Stage Model of Organizational Socialization

A few researchers have presented stage models of socialization. Wanous' (1980) three critical areas of an effective stage model are used here in determining which would be most applicable and effective for use in an

interactionist perspective of organizational socialization. First, Wanous states that either the passage of time or the occurrence of events should determine the organization of a stage model. He states that in this case the occurrence of events is most applicable. Second, he states that the model must explain how each stage relates to the others. Third, the model must explain what defines movement from one stage to the next.

Out of the models examined (Feldman, 1976; Schein, 1978; Van Maanen, 1976; Wanous, 1980) one presented by Van Maanen (1976) appears to be the most parsimonious for inclusion here. The first stage in Van Maanen's model is *Anticipatory Socialization*. This stage includes the knowledge and experience that the individual collects throughout the lifetime with regards to work, meaning attitudes towards work in general and prior experiences of socialization with previous organizations. The second stage is *Encounter*. This stage can refer to an individual entering a new organization, or making a boundary change, as previously defined by Schein, within the organization. Van Maanen describes this moment of encountering the new boundary as a reality shock for the individual. He states that the severity of the shock is in part related to the congruence or disparity between how the individual anticipated the expectations of the organization and what is actually experienced. It is during this stage that environmental, organizational, group, task, and individual forces combine to determine the movement, or lack of movement, of the individual to the next stage of the model. To describe a few of the forces in more detail, relevant group forces are those that are created by the participation of the individual in a smaller subgroup of the organization, the smaller subgroup lies, "outside the control of the formal organization" (p. 90). It is in this group that the individual tests most of his or her perceptions of the organization. Elements of the tasks assigned to the individual influence the socialization process; often there is a disparity between what was assumed by the individual to be the task and what is experienced. Finally, personal characteristics, or individual differences also affect the socialization process. The interaction of these forces influence the "game" that ensues between the individual and existing organizational members, determining the next moves of the individual.

The third stage presented by Van Maanen is *Metamorphosis*. This is the stage where the individual tests new solutions to the problems initially faced within the organization. It is also in this stage that the individual accepts or rejects the socialization efforts of the organization. Several theorists have discussed what "acceptance" means for the individual. In short, the prevailing attitude is that individuals are composed of an, "integrated set of social selves organized around a basic image or concept of self. His basic temperament, intellectual equipment, learned patterns of feeling expression, and psychological defenses underlie and partially determine this self-image and the kinds of social selves which the individual constructs for himself to deal with his environment" (Schein, 1971, p. 409). It is, therefore, the work portion of the social self that is changed when the individual accepts the norms, behaviors, values and patterns of the organization, and not the foundational concept of self.

Necessary Element 2: Accounting for Individual Differences in Organizational Socialization

Van Maanen's (1976) three-stage model of socialization makes it clear that individual differences, including previous socialization experiences, influence current socialization experiences; these factors are woven into each stage of his model. Similarly, Jones (1983) states that along with previous socialization experiences, attributional processes will affect each individual's ability to make sense of the organizational context. As stated previously, the individual experience is complex and there are many variables that could be brought to bear on the experience of socialization. However, work by Louis (1980) provides some direction in this area. While not all inclusive, as a framework, it would help to guide further research in this area. In his model, Louis describes how the elements of *change*, *contrast*, and *surprise* are what trigger varying individual responses based on individual differences.

The boundary transition the individual is encountering may be entering a new organization completely, a promotion, a transition into a new functional role, or a change to a new level of inclusion or acceptance into the social fabric of the organization (Schein, 1971). Regardless of which boundary transition it is, there is an element of change. Here, *change* is defined as "an objective difference in a major feature between old and new settings" (Louis, 1980, p.235); it is the physical and the knowable changes between the old and the new. A few of such examples would be the job location, job tasks, or new coworkers. Logically, the more physical elements of change present in the boundary transition, the greater the degree of change the individual is required to cope with.

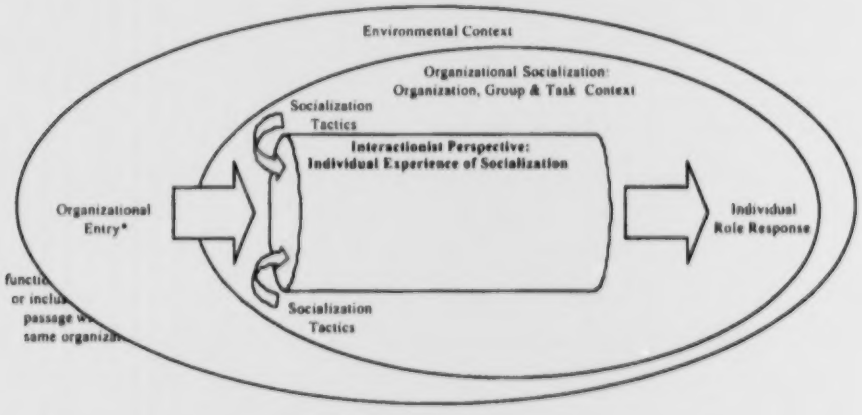
While the first element of change is concrete and external to the individual, the second element of *contrast* is experienced internally. Each new piece of information is compared with a previous understanding about work and is felt by the individual only to the degree that it contrasts with prior conceptions. An organization that encourages and models risk-taking behaviors may or may not be seen as a contrast to previous experience. If the contrast is great between previous experience and the new surroundings, the individual may take longer to let go and accept the new norms of risk-taking in his or her new surroundings. Louis (1980) states that the individual, "may evaluate aspects of the new role using old-role experiences as anchors on internal comparison scales. Or the newcomer may try to

incorporate aspects of the old into the new role or resist the new role in favor of the old role" (p. 237).

The third element, *surprise*, reflects the difference between anticipations and subsequent experiences and encompasses the affective or internal reaction to change or contrast. Overmet or undermet expectations about the job, about one's own abilities, or about the culture of the organization can lead to an affective response of surprise. Each individual would have a different degree of surprise based on how his or her preconceived notions and interpretation schemes matched with the settings encountered. In essence, "discrepant events, or surprises, trigger a need for explanation, or post-direction, and correspondingly, for a process through which interpretations of discrepancies are developed. Interpretation, or meaning, is attributed to the surprises. Based on the attributed meanings, any necessary behavioral responses to the immediate situation are selected" (Louis, 1980, p.241).

Taking into account how previous socialization experience and attributional processes influence the stages of socialization for individuals, we now would have a more complete model to work with. Figure 2 depicts an integration of the new pieces, chosen by this author, into a new theoretical model of organizational socialization (see figure 2). As the individual enters a new boundary transition into or within the organization, an array of forces are already at work. The organization, in its societal and industrial contexts has determined the socialization tactics it will employ to ensure that those within it are content innovators, accepting the vital norms, values, and roles, and innovating that which will make the company more successful. The individual, in his or her societal and cultural contexts, has been exposed to a variety of socialization experiences that help to inform, for better or worse, the actions and responses to the boundary transition. As these forces interact in real time, the individual moves through the socialization process. For each individual, and for each organization, there are different collections of forces. As we begin to take into account the set of forces that exist with considering the individual experience of socialization, it is apparent that research is required to determine the interaction of all of these elements.

Figure 2. The Process of Orgaizational Socialization Using Interactionalist Perspective



Conclusions and Research Directions for HRD

"Indeed, from the time individuals first enter the workplace to the time they leave their membership behind, they experience and often commit themselves to a distinct way of life complete with its own rhythms, rewards, relationships, demands, and potentials" (Van Maanen & Schein, 1979, p.210). As organizations struggle with the tension between protecting their core essence and adjusting to the demands of the market, they must incorporate new members into that journey in the most effective ways possible. What has been revealed here is that the prevailing theory of organizational socialization and the new interactionist perspective are merely two lenses through which to view this complex human phenomenon. By overlaying the lenses, our view of the phenomenon becomes clearer. There are some steps, however, that must be taken in order for this integrated theory to be viable in HRD practice.

First, a complete synthesis of the literature on organizational socialization would need to be done. The purpose if this step would not only be to bring to the surface all of the work mounted on the sides of the organizational lens and the interactionist lens, but also to begin to sort through what empirical research has supported or refuted claims presented in the theoretical literature. It has been more than two decades since the publication of the prevailing theory by Van Maanen and Schein, and not all of their claims have been empirically tested. Second, in line with

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Dubin's (1983) stages of theory building, this stage requires the development of new propositions about how all of the elements of the theory affect one another. Van Maanen and Schein (1979) developed propositions about how the tactics of socialization utilized by the organization affected the role response of employees. One example would be the proposition that having an organization utilize an *individual* socialization tactic would be more likely to produce the specific outcomes that were desired by the socialization agents because of the greater control found in an individual context versus a group context. These would have to be reevaluated given the integration of individual variables. Finally, HRD scholars and practitioners need to remain in touch on this issue in order to communicate about the viability of this more inclusive view in practice; scholars cannot become too engrossed in the theoretical intricacies of socialization forgetting its practicality in organizations.

HRD is a messy field. We muck around in shades of gray with every move we make; after all, we are dealing with people. This paper has presented the need to continue to wade through those shades of gray to have a more inclusive and informative view of the phenomenon of organizational socialization.

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The Relationship Between Workpalce Learning and Job Satisfaction in U.S Small to Mid-Sized Businesses

Robert W. Rowden
Mercer University—Atlanta

Although a great deal of attention is given to HRD in Fortune 500-type firms, little is known about the nature and extent of workplace learning in small to mid-sized businesses in the United States. Also, workers in SMEs have been found to have higher levels of job satisfaction than do workers in large organizations. This study measures the nature and extent of workplace learning in SMEs; delineates the nature and extent of job satisfaction; and examines the relationship between them.

Key Words: Workplace Learning, Job Satisfaction, Small Businesses

By any measure, small to mid-sized businesses are critical to the economic well being of the United States. They create new businesses (and the new jobs that go with them); bring new and innovative services and products to the marketplace; and provide business ownership opportunities to diverse (and traditionally underrepresented) groups (Headd, 2000). Of the approximately 5,797,500 U. S. businesses with employees in 2000, roughly 99.7 percent were small to mid-sized businesses (2001 Small Business Profile, U.S. Small Business Administration). Not only do these small to mid-sized business create a wide variety of jobs for the employment sector, but they also keep the U.S. economy churning (Headd, 2000).

Small businesses are playing an increasingly important role in the world economy as well. Small businesses (those employing 100 people or less) "are responsible for 82 percent of the jobs created in the United States" (Megginson, Scott, Trueblood, & Megginson, 1995, p. 247). Yet, of the more than 600,000 small businesses started each year in the U.S., 80 to 85 percent fail in the first five years (Small Business Handbook, 1990). The economic well-being of some regions of the United States is dependent upon small businesses where the majority of businesses (88 percent) employ fewer than 200 people (U.S. Department of Commerce, (1990-91).

Even so, it seems that even defining what constitutes a small business is not without difficulty. The U. S. Small Business Administration defines a small business as one having fewer than 500 employees in the manufacturing and mining sector, and 100 employees for all wholesale trade industries (Headd, 2000). Storey (1994) reports that the European Commission breaks the definition into three components based on number of employees: *micro-enterprise* with between 0 and 9 employees; *small enterprise* with between 10 to 99 employees; and *medium enterprise* with 100 to 499 employees. A later report by the European Commission redefined its original categories as: *micro-enterprise* with between 0 and 9 employees; *small enterprise* with 10 to 49 employees; and *medium enterprise* with 50 to 249 employees (Curran, Blackburn, Kitching & North, 1996). The U. S. Department of Commerce (1990-91) discusses small businesses in terms of businesses with fewer than 200 workers. Others, for example Megginson, Scott, Trueblood, and Megginson (1995) and Daly and McCann (1992), define small businesses as those with 100 or fewer workers. Despite the varied definitions and regional differences, the most consistent definition of small to mid-sized businesses seems to be a business with fewer than 200 employees.

Regardless of how small to mid-sized businesses are defined, certainly, they are a dynamic force in the economy, bringing new ideas, processes, and vigor to the marketplace. They fill niche markets and locations not served by larger businesses. Small firms are often younger than large firms, more likely to be outside major urban areas, and more apt to be in industries with lower economies of scale such as service. Small firms can represent a life stage before economies of scale are reached (or hoped-for future growth is attained), or they can be a stable anchor in the marketplace. These age, location, and industry effects constitute the basic differences between small and large businesses and can lead to different workforce needs and different resources to attract workers of various education levels and occupations (Anderson & Skinner, 2000).

Increases in competition, globalization, and the speed of change have helped to highlight the importance of the capacity for learning in small to mid-sized businesses as a key to both survival and success (Dumphy, Turner & Crawford, 1997; Easterby-Smith, Snell & Gehardi, 1998; Fulmer, Gibbs & Keys, 1998). The capacity to learn is one of the fundamental attributes of human beings and involves them developing and changing as time passes (Arnold, Cooper & Robertson, (1995). Much of this development is informal and randomly experienced, a feature highlighted particularly in Kolb's experiential model of learning (Kolb, 1984). Marquardt (1996) argues that learning (as distinct from training or instruction) assumes continuous change and focuses on values, attitudes, and innovation.

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Developing the human resources of a company would seem to be key to increasing production and closing the gap between the level of worker skill and present and future needs. Businesses that have made learning, education, and development a priority have seen it pay off through greater profitability and increased worker job satisfaction (Coblentz, 1988; Filipczak, 1989). Recent studies have found that job satisfaction is rarely tied to pay and promotion; but rather, workers are more interested in such things as feeling appreciated, being "in on things," and career development (Buhler, 1994; Dolan, 1996) all of which have linkages to workplace learning.

Job satisfaction is simply how people feel about their jobs and different aspects of their jobs. There are important reasons why organizations should be concerned with job satisfaction. First, the humanitarian perspective is that people deserve to be treated fairly and with respect. Job satisfaction is to some extent a reflection of good treatment. It also can be considered an indicator of emotional well being or psychological health (Haccoun & Jeanrie, 1995). Second. the utilitarian perspective is that job satisfaction can lead to behavior by employees that affects organizational functioning, as well as a reflection on organizational functioning. Differences among organizational units in job satisfaction can be diagnostic of potential trouble spots (Beatty, 1996). Each reason is sufficient to justify concern with job satisfaction. Combined they explain and justify the attention that is paid to this important variable.

Indeed, Buhler (1994) emphasizes the point when she talks about the continued effort organizations must place on employee satisfaction and the economic importance to the company. "Organizations that believe that workers are easily replaced and do not invest in their workers send a dangerous message. This often results in high turnover, which is accompanied by high training costs, as well as hiring costs. . . .It fosters the same type of attitude in the employee, that the company can be replaced and little loyalty is felt" (1994, p. 10). Even in times of near-full employment, these studies make it clear that companies must take advantage of all workplace learning opportunities if they are to remain successful.

However, until recently, most studies of workplace learning like the ones by Coblentz (1988), Beatty (1996), and Hitt (1998), for example, have been conducted in large corporations. Few firms in the samples have had annual sales of less than US$1 billion. Most U.S. businesses are small to mid-sized with annual sales well under US$10 million (Anderson & Skinner, 1999; Lee, 1991). How learning is orchestrated and how skills and knowledge are acquired and developed in small to mid-sized organizations should be matters of major interest. There has been little attempt in the HRD literature to differentiate between larger and smaller organizations and to address the impact that size and associated resource constraints might have upon both actual and desired approaches to workplace learning. Most of the mainstream literature seems to have assumed that HRD activities take place in organizations where training, development, and learning issues are addressed by specialist staff operating within a dedicated functional unit. The majority of small to mid-sized businesses have no such specialist function or department, and not even a dedicated member of management or staff (Walton, 1999).

To date, little is known about the relationship between workplace learning and employee satisfaction in small to mid-sized companies. Studies by Des Reis (1993) and Rowden (1995) have found that such firms may not even be aware of the nature and extent of learning in their workplaces. Yet it is likely that the success of such companies is at least attributable to the ways in which employees are attended to, formally and informally trained, and developed.

Statement of the Problem

Conventional wisdom says that small businesses do not have the financial resources nor the time to do very much, if any, human resource development or workplace learning. These views on training in small businesses have generally been supported each time quantitative research has been conducted in a variety of small businesses. However, a qualitative study (Rowden, 1995) found that, in fact, U.S. small businesses do engage in a considerable range of formal, informal, and incidental workplace learning activities. The information gleaned from the interviews, observations, and documents provided the foundation upon which a questionnaire for assessing the extent of workplace learning from a perspective that small businesses truly understand. In fact, a study by Rowden and Ahmed (2001) employing the questionnaire in Malaysia further established the presence of workplace learning in small to mid-sized businesses.

We have known for some time that more learning occurs in the workplace than just what happens in formal training classrooms. Watkins and Marsick (1992) have identified the different forms of workplace learning as formal, informal, and incidental. Formal learning (training), of course, is discrete planned events (experiences) used to instruct people how to perform specific defined jobs. Informal learning is defined as any learning that occurs in which the learning process is not designed or determined by the organization. Formal learning includes both an expressed organization goal and a defined process. Informal learning can occur whether or not there is an expressed goal, and can serve individual as well as corporate objectives. For example, informal learning might best occur

when a coworker shows a new employee how to use a machine through an actual demonstration rather than through a classroom presentation. Although interconnected, informal and incidental learning are not necessarily the same. Incidental learning occurs as an unintended by-product of some other activity such as trial-and-error experimentation. The intention of the activity is task accomplishment, but serendipitously increases particular knowledge, skills, or understanding. Formal and informal learning tend to be intentional whereas incidental learning is not. Learning, as opposed to training, is more appropriate to a business environment in which jobs are constantly changing (Marsick & Volpe, 1999).

Another recent study (Anonymous, 1997) found that workers in U.S. small businesses were generally more satisfied with their employment situation than were workers in larger companies. The study found that 44 percent of the workers in small businesses said they were "extremely satisfied" with their jobs, compared with 28 percent at companies with 1,000 or more workers. It was speculated that factors such as job security, empowerment, and the ability to do what they do best might explain job satisfaction. While workplace learning was not one of the indicators in the study, the respondents reported that they could learn and grow on the job.

An assumption of this study is that a sense of satisfaction a person feels about his or her employment can be directly linked to the three types of workplace learning. That is, employees who have opportunities to grow and learn in their job will express higher levels of job satisfaction. To test this assumption, this study first established the nature and extent of workplace learning in small to mid-sized businesses; established the level of job satisfaction reported in the same small to mid-sized businesses; and established the relationship between these learning opportunities and the level of employee satisfaction in these organizations.

Purpose and Research Questions

The overall purpose of this study is to understand workplace learning in the context of the small to mid-sized business. The specific research questions are:

1. What is the nature and extent of workplace learning in small to mid-sized businesses?
2. What is the relationship among three types of workplace learning (formal, informal, and incidental) in small to mid-sized businesses?
3. To what extent do those three types of workplace learning explain job satisfaction?

Methodology

The qualitative study by Rowden (1995) was successful in identifying the key concepts of workplace learning in small to mid-sized businesses. A quantitative study was deemed to be an appropriate way to operationalize those findings. Since a survey provides a means to capture large amounts of data over a wide range of possibilities, an instrument was developed that captures the essence of the findings on workplace learning revealed by the Rowden (1995) study. The resulting survey instrument was combined with the Spector Job Satisfaction Survey (1997) in order to measure the level of job satisfaction in the same organizations.

To aid in the investigation of the possible relationships among the types of workplace learning and the constructs of job satisfaction without trying to influence those variables, a correlational procedure was deemed the most appropriate statistical technique. Correlational procedures show the extent to which change in one variable is associated with change in another variable. When a correlation is found to exist between two variables it means that scores within a certain range on one variable are associated with scores within a certain range on the other variable (Fraenkel & Wallen, 1996). Using a correlational (Pearson *r*) procedure establishes the relationship among the variables for workplace learning and job satisfaction.

Description of the Sample

Twelve small to mid-sized companies agreed to participate in the study. Participating companies were located through a variety of methods including personal contacts, colleagues, and "cold calling." A total of 439 surveys were returned. The 6 companies consisted of a timber products company (102), a manufacturing company (89), a healthcare facilities (61), an engineering firm (53), a paving contractor (78), and a general construction firm (56).

Over ninety percent of the respondents work full time. Nearly sixty-eight percent are male. Seventy-five percent are between the ages of 19 and 49. Sixty-eight percent are married. Nearly fifty percent work at companies with fewer than 100 employees and nearly eighty percent work for companies that employ less than 150 employees. Over eighty percent have been employed by their current company for less than 10 years. Just over seventy percent

are non-supervisory and over seventy-five percent earn more than $10 per hour. Forty-seven percent work in service industries while thirty-two percent work in manufacturing.

Instrument

There is limited research on HRD in small to mid-sized businesses. Most people believe that small businesses do little, if any, development of their workers. For example, *Training Magazine*, which annually conducts a study of the training industry in the U.S., does not even attempt to contact businesses with fewer than 100 employees and only 16 percent of their sample consist of companies with between 100 and 500 workers.

Several attempts have been made to determine the nature and extent of workplace learning in small business. Invariably, the studies concluded that, in fact, little HRD occurs in small businesses (for example, Des Reis, 1993; Hill & Stewart, 1999). A review of several of the studies determined that a likely cause of the lack of discovery of workplace learning in small businesses was due to the design of the surveys. A qualitative study by Rowden (1995) did reveal numerous indices of workplace learning in small to mid-sized businesses. By looking at the field notes and transcripts of interviews of workers, it was believed that previous attempts to capture workplace learning in small to mid-sized businesses was due in large part by the language of the questionnaire. Making every attempt to stay as close as possible to the language and references used by actual workers in small to mid-sized businesses, a survey was developed to attempt to capture the nature and extent of workplace learning in these businesses.

The research on job satisfaction in small businesses mirrors that of HRD in small businesses. Until a study by Anonymous (1997), little attention had been paid to worker job satisfaction in small businesses. This study found that workers in small businesses, generally, were more satisfied with their work than were workers in larger businesses. The study did not, however, seek to determine *why* the workers were more satisfied. The study mentioned ideas like better communication, a feeling of being in on things, and a smaller power distance—but no factors were actually measured. Again based on the Rowden (1995) study, a possible connection could be made between workplace learning and job satisfaction. To determine if this hypothesis were true, workplace learning and job satisfaction would have to be measured in the *same* small businesses. Then, correlational measures could be made to determine if small to mid-sized businesses with high measures of workplace learning *also* had high measures of job satisfaction. The Spector (1997) Job Satisfaction Survey was determined to be the best-validated and reliable instrument for determining job satisfaction. A modified version was incorporated into the questionnaire along with request for background data. Once developed, the *Small Business Workplace Learning Survey (SBWLS)* was subjected to critique sessions by content area experts as well as graduate HRD classes to ensure for content validity. The process was continued until saturation was reached; that is, until no more distinct categories could be ascertained.

The result of the development process was a six page self-administered questionnaire that utilized a 1-6 (Disagree Very Much—Agree Very Much) Likert scale. The instrument is divided into three sections—workplace learning, job satisfaction, and background information. The three constructs or independent variables for the workplace learning portion were formal, informal, and incidental learning. The reliability for each measure was conducted using Chronbach's alpha. The *formal* learning scale (6 items, alpha = .81) included items measuring respondent's perceptions of planned, organized, training activities. The informal learning scale (8 items, alpha = .73) included items measuring respondent's perceptions of unplanned or spontaneous activities that lead to perceived learning on the job. The *incidental* learning scale (7 items, alpha = .78) included items designed to measure respondents perception of normal workplace activities that resulted in learning even though that was not the purpose of the activity. The *overall* learning scale (all 21 items, alpha=.89) combines the three aspects of workplace learning.

The Spector Job Satisfaction Survey (1997) was embedded into the instrument. The 27 items were designed to measure nine separate aspects of job satisfaction. However, after the data collected were subjected to preliminary analysis, it was found that none of the nine measures yielded adequate reliability. This may have been because some items on the JSS carry different meanings in different businesses, or it could simply be an artifact of too few indicators per construct being measured. Consequently, it was decided to subject those 27 items to exploratory factor analysis to determine the underlying constructs that constituted those nine measures. During this process, numerous solutions both octagonal and oblique were explored ranging from two through eight factor solutions. The ultimate criteria were conceptual meaningfulness.

As a result of the exploratory factor analysis of job satisfaction, the dependent variables were identified as *supportive environment, recognition, benefits*, and *enjoyment*. The items comprising each of these factors were combined into additive indices and the reliabilities were calculated. *Supportive Environment* (11 items, Chronbach's alpha = .88) included items measuring meaningful work, feeling "in" on things/knowing what is going

on, and satisfaction with the quality of supervision. *Recognition* (6 items, Chronbach's alpha = .76) included items measuring communication, getting ahead, and promotion. *Enjoyment* (4 items, Chronbach's alpha = .75) measured if the respondent liked his or her work, supervisor, and coworkers. *Benefits* (4 items, Chronbach's alpha=.72) included items measuring satisfaction with benefits, and if the benefits were equitable. The *overall* measure of job satisfaction received an alpha of .83.

The third section of the instrument contains nine ordinal and nominal scale items designed to capture additional information about the respondents. These items were also subjected to analysis with some minor correlations noted. However, they were not germane to the study and are not reported here.

Table 1. *Workplace Learning Responses*

	N	% Responding 5 or 6 (top of Agree Scale)	Mean	Std Deviation
Incidental				
Q5	431	51.2	5.10	1.01
Q6	427	49.8	4.95	1.30
Q9	429	65.6	4.90	1.41
Q14	425	41.5	4.33	1.48
Q18	416	45.1	4.85	1.45
Q20	430	46.8	4.74	1.39
Q21	427	45.9	3.95	1.93
Informal				
Q1	438	59.9	4.95	1.36
Q4	436	35.4	5.08	1.23
Q7	419	54.4	4.51	1.46
Q8	414	39.3	4.80	1.38
Q10	409	30.0	5.09	3.40
Q13	424	43.7	4.33	1.62
Q15	410	51.1	4.31	1.58
Q17	413	49.7	4.21	1.66
Formal				
Q2	416	26.7	3.86	2.02
Q3	436	45.3	4.32	1.65
Q11	421	32.2	3.66	1.80
Q12	420	23.1	4.00	1.82
Q16	408	29.2	3.48	1.94
Q19	430	40.3	4.53	1.57

Data Analysis

The data were analyzed in a variety of ways. First, simple descriptive statistics (means; measures of variation—standard deviations; frequencies) were employed for the surveys from each company to determine the nature and extent of workplace learning in the companies. Then, the Pearson product-moment correlation was conducted to determine the inter-correlation among the three types of learning, and to determine the strength of the relationship between workplace learning and employee satisfaction across the companies.

In order to assess the relationship among the three types of workplace learning, two different analyses were conducted. In the first analysis, the mean-item mean for each of the three was calculated and compared so that the relative extent of each can be compared. The inter-correlation among the three was examined. They were different but related, which is what one would expect.

In order to answer research question 3, the correlation between the three workplace learning measures and the five (4 + overall) job satisfaction measures were examined. Additional analyses examined the relationship between background variables and measures of job satisfaction and workplace learning.

Findings

Examination of the responses on the *SBWLS* revealed sufficient evidence to conclude that learning is pervasive in these small to mid-sized businesses. Table 1 shows the means, standard deviations, and percent responding at the top of the "Agree Scale." The means and standard deviations indicate strong positive responses to the questions in all three arenas of learning. Findings support the notion that small businesses have a substantial amount of human resource development occurring in the workplace. In fact, the only questions that received somewhat low ratings dealt with whether or not the organizations reimbursed tuition for formal education and professional organizations. All other questions dealing with formal, informal, and incidental learning received strong support from the respondents.

The formal, informal, and incidental learning measures were examined for the mean item effect. The mean-item means are: *informal* = 4.66; *incidental* = 4.69; *formal* = 3.98. Incidental learning has a greater place in the workplace by these numbers, followed closely by informal learning. Table 2 shows the inter-correlation among the three workplace learning variables which is further evidence of validity. These measures provide further understanding of the nature and extent of workplace learning in small to mid-sized businesses.

Table 2. *Intercorrelation Among Three Types of Learning*

		Incidental	Informal	Formal
Incidental	Pearson r	1.000	.830**	.478**
Informal	Pearson r		1.000	.624**
Formal	Pearson r			1.000

**. Correlation is significant at the 0.01 level (2-tailed)

Table 3 shows the relationship between workplace learning and job satisfaction. All three measures of workplace learning were significantly correlated with each of the four measures of job satisfaction. Certain background variables exhibited weak but significant correlations with the three forms of workplace learning, and the four variables of job satisfaction. They were not included as part of this discussion.

These findings have a profound bearing on our understanding of workplace learning in small businesses. It also establishes strong linkages between workplace learning and job satisfaction in these same small to mid-sized businesses. The summary of the relationships contained in Table 3 are key to this new understanding.

Table 3. *Relationship Between Workplace Learning Measures and Job Satisfaction Measures*

		Incidental	Informal	Formal
Supportive	r =	.285**	.287**	.134*
Environment	r^2 =	.08	.08	.02
Recognition	r =	.644**	.579**	.382**
	r^2 =	.41	.34	.15
Enjoyment	r =	.272**	.278**	.168**
	r^2 =	.07	.08	.03
Benefits	r =	.153**	.204**	.280**
	r^2 =	.02	.04	.08
Overall Job Sat	r =	.440**	.441**	.302**
	r^2 =	.19	.19	.09

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

The coefficient of determination of the three types of learning as they relate to overall job satisfaction, allow us to predict that 19 percent of the overall job satisfaction these workers experienced is accounted for by Informal learning; that another 19 percent is accounted for by Incidental learning; and that 9 percent of the variance is accounted for by Formal learning. This indicates that a large part of the workers sense of job satisfaction comes from workplace learning. While other factors affect job satisfaction, no other known study has so directly tied a satisfied workforce to the learning that occurs within the work setting.

This study also indicates that workplace learning has linkages to an employee's satisfaction with his or her perception of *recognition*. The coefficient of determination allow us to predict that 41 percent of the satisfaction

with being recognized for a job well-done is accounted for by Incidental learning; that 34 percent is accounted for by Informal learning; and 15 percent is accounted for by formal learning. This supports the belief that workplace learning positions one for advancements that lead to recognition, promotion, and pay increases.

The mean-item means analysis indicates that of the three measures of workplace learning, incidental learning has the greater place among them. Again, this has significance as to where we place our time and money. Formal learning—the one that gets all the attention and money—has the lowest place of the three.

Conclusion and Discussion

Previously, conventional wisdom has held that small to mid-sized businesses do little to develop the human resources in their organizations. This study does not support that thinking. The respondents in this study reported extensive incidents of formal, informal, and incidental learning in the workplace, with incidental learning having the greater place among them. In addition, the respondents also reported a feeling of overall job satisfaction with recognition, work enjoyment, benefits, and supportive work environment a big part of their perception of satisfaction. Not only that, they attributed a large part of their job satisfaction to the availability of learning opportunities on the job.

These findings have some significant implications for theory and practice:

- No longer can there be denial that the development of human resources occurs in small businesses. Studies such as the ones by Des Reis (1993), Morse (1984), and *Training* (1998) that found an absence of HRD activities in small businesses are placed in question. This study firmly establishes the nature and extent of workplace learning in small to mid-sized businesses.
- There is now support for the findings made by Anonymous (1997) in U. S. small businesses that found workers generally had a higher level of job satisfaction than did workers in large enterprises. The workers in this study indicated a very strong sense of being satisfied by the work they were doing.
- Workplace learning is now directly linked to employee job satisfaction. No known previous U.S. studies have undertaking the connection between the two variables. This can have huge implication as to where managers place their emphasis to ensure content workers. Rather than focusing almost solely on pay to enhance job satisfaction, companies can begin to focus on enhancing learning opportunities.
- Informal learning and incidental learning each have a significantly higher place in the learning network than does formal training. As Jacobs and Jones (1995), and Rothwell and Kazanas (1994) encourage, greater emphasis and financial support needs to be placed on on-the-job training as a learning tool in organizations.
- This study supports previous findings (Kovach, 1987) that being appreciated for one's work, feeling "in" on things, and enjoying the workplace and coworkers are a significant part of job satisfaction. Workers indicated that workplace learning contributed significantly to these aspects of job satisfaction.

While this study clearly does not represent the entire global workplace, even so, these findings are significant for exploring the relationship between workplace learning and employee job satisfaction. It is the first known empirical study conducted in the United States to establish the nature and extent of workplace learning in small businesses. It is also the first U.S. study to delineate the relationship between workplace learning and job satisfaction. A companion study conducted by Rowden and Ahmed (2001) in Malaysia found very similar results.

A number of practical implications can be drawn from this study that are of interest to HRD and managers in companies, small and large, in day-to-day operations. Additionally, it also establishes a new understanding for teachers of human resource development, human resource management, and management. This material provides techniques to promote operational methods to help assure organizational success.

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Can One Size Really Fit All? A Study of the Relationship Between Learning Needs and Learning Satisfactions of Non-Traditional Students in Taiwan

Hui-Chin Chu, Ed.D.
Shu-Te Technical University

Chi-Jung Fu, Ed.D.
Kai Nan University

The purpose of this study was to investigate the learning needs of non-traditional adult students in college extension degree programs and the relationship between their learning needs and learning satisfactions. Participants who had stronger desire for improving their competence tended to have higher satisfaction toward environment-related factors. Those who had more desire for self-accomplishment and social needs were more satisfied with instructional –related and interpersonal-related factors. Additional findings are discussed.

Key words: Non-traditional Students, Learning Needs, Learning Satisfactions

The Taiwanese government has been making their efforts to promote adult extension education, returning education, and continuing education in order to prepare their workforce for today's highly competitive international environment. The Ministry of Education passed the "College Extension Education Implementation Statute" in 1998. College extension education, which allows universities and colleges to offer degree programs, has become one of the mainstreams of higher education in Taiwan (Ministry of Education, 2000). According to the statistics released from the Department of Education, there were 61 colleges and universities offering extension programs with 115,721 students in 2000 compared to 52 schools with 91,761 students in 1999 and 40 schools with 91,048 students in 1998 (Ministry of Education, 2000). The increasing number of extension students is an indicator that adult continuing education is getting more attentions in Taiwan.

Chinmin College is considered as one of the typical Taiwanese 2-year colleges in middle Taiwan where 3,125 students enrolled in the weekend extension degree programs during the school year of 2,000. The classes are conducted in evenings and weekends, and the students are mostly working adults. The instructors involved in these programs have experience primarily in the traditional college environment. Teaching one or two extension courses is required in order to meet their required teaching load.

The growth of nontraditional adult student enrollment in higher education demands a different and more flexible delivery system in order to meet the students' need (Chu & Hinton, 2000). However, most of the programs offered in college extension programs in Taiwan are still identical with the programs designed for traditional college students. Adult students' characteristics and needs are not taken into consideration accordingly. Thus, it raises a question: Can this "one size fits all" curriculum really fit all?

Most of the research studies in Taiwan have focused on students' satisfaction to the programs they are involved in but have not addressed the relationship between students' individual learning needs and their learning satisfaction. In order to serve these students effectively and actualize the purpose of adult education, a study in this field is needed.

Theoretical Framework

According to a survey done by Lee and Luo (1992), adult students' learning needs include improving professional skills, increasing income, pursuing personal fulfillment, and changing career and so forth. Dr. Carole Fungaroli suggested in her book *Traditional Degrees for Nontraditional Students* that adult students return to school for the following reasons: career change, better jobs, promotions, or higher income, social needs, greater self-esteem, self-fulfillment, and cognitive satisfaction (Fungaroli, 2000).

Different from traditional students, adult students return to school by their own choice; therefore, learning satisfaction is extremely important (Tzai, 1997). According to Houle (1961), learning satisfaction occurs when learning activities meet the students' goals/needs. Knowles (1970) and Tough (1982) both stated learning satisfaction occurs when the students are fulfilled and motivated when they are engaged in learning activities.

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There are many factors that influence learning satisfaction such as: the instructor, the contents, learning materials, teaching styles, learning climate, and curriculum (Urdan, 1979). Cheng (1983) proposed that teacher's characteristics and teaching styles, social interaction, work-related skills learning, and personal development are the factors that influence learning satisfaction. Ma (1989) believed that learner's personal factors such as: social background, psychological characteristics, learning motives; teacher's factors such as: personality, teaching styles, teaching methods, learning contents, and attitudes toward students; and school factors such as: school environment, administrative services, and policies are factors influencing students' learning satisfaction.

Research has identified adult learning barriers that cause adult students dissatisfaction to learning. Those barriers included informational barriers, procedural/institutional barriers, situational barriers, and psychological barriers. Financial barriers, which is classified as one of the institutional barriers, is one of the biggest problems for adult students' dissatisfaction (Pinkston, 1987).

Dewey, and subsequently, Knowles proposed that the adult teacher should provide physical conditions that are comfortable and conducive to interaction; accept each student as a person of worth and respects his feelings and ideas; seek to build relationships of mutual trust and helpfulness among the students by encouraging cooperative activities and refraining from inducing competitiveness and judgmentalness; and involve the students in a mutual process of formulating learning objectives (Dewey, 1933; Knowles, 1990).

Methodology

According to the information provided by Chinmin College, there were 3,125 students enrolled in the extension education programs during the school year of 2,000. Based on the suggestion of Creative Research System (2001), the sample size of 350 students was determined. "Cluster sampling" was selected as the sampling technique to ensure that the samples were equally selected based on two variables: " major" and "years in school." There were 59 classes in the programs. Six students were randomly selected from each class. Therefore, the sample size in the present study was 354 students. 294 students responded to the survey, which led to a response rate of 83 percent.

The survey questionnaire used to collect data in the present study contained 3 sections and 45 corresponding questions. These sections are demographics, learning needs (their purposes of attending extension programs), and the learning satisfactions. A five-point Likert-type scale ranged from 1 (strongly disagree) to 5 (strongly agree). was adopted in both learning needs and learning satisfaction sections. There were 15 scaled-item questions in learning needs and 22 scaled-item questions in learning satisfactions (Wiersma, 1991).

In the demographic section, there were 8 multiple-choice questions which included: (a) Gender; (b) Age; (c) Marital status; (d) Occupation; (e) Position level; (f) Personal income; (g) Major; and (h) Years in school. The learning needs section included four factors, which were: (a) Job Advancement; (b) Competency Enhancement; (c) Career Change, and (d) Self-Accomplishment. The learning satisfactions section included five factors, which were: (a) Instructional-related Factor; (b) Environment-related Factor; (c) Curriculum-related Factor; and (d) Interpersonal-related Factor.

Data Analysis

The research questions were expressed as null hypotheses. A series of descriptive analyses was conducted before an inferential statistical test for each null hypothesis. All the data were quantified with descriptive statistics by using the Statistical Package for the Social Science (SPSS), version 8.0. Inferential statistical tests (t-Test, one-way ANOVA, and Correlation) were performed to test the research questions. All of the data was tested at a significance level of .05 (Gall, Borg, & Gall, 1996).

To ensure internal consistency of the survey instrument scaled items, a series of reliability analyses were conducted. The results indicated that the survey instrument had highly reliable Coefficient Alphas with a minimum of .85 in the 15 questions of the learning needs section and a minimum of .91 in the 22 questions of the learning satisfactions section.

Factor analyses were performed on the Learning needs section and the Learning satisfactions section to reduce survey variables to a minimum number of factors. An eigenvalue cut off point of 1.0 is considered as it was the most often used (Norusis, 1990). In order to provide a better interpretation of the factor matrix, a Varimax rotation technique was conducted. In addition, scaled items that had a factor loading less than .40 were omitted (Stevens, 1986).

Based on the factor analyses, questions in the learning needs section were extracted into four factors with a

minimum eigenvalue of 1.12 that led to a total of 62.7 percent of variance. All the factors have a minimum loading of more than .40, which were .44; .44; .58; 46, respectively. Question in the learning satisfactions section were extracted into four factors with a minimum eigenvalue of 1.22, which led to a total of 61.1 percent of variance. The minimum loadings were .45, .55, .42, .71, respectively.

Results and Findings

The majority of participants were male (68.9%). Most of the participants (73.5 %) were older than 30 years old, while only 4.8 percent of participants were younger than 20 years old. More than half of the participants (56.5 %) were married. More than half (50.7%) of the participants were working in manufactures, while fifteen (5.1%) of the participants were unemployed. The highest percentage (35.4%) of the participants were clerks, while seventy-nine respondents (26.9%) were line workers; forty-five respondents (15.3%) were supervisors; twenty-eight respondents (9.5%) were management; and thirteen respondents (4.4%) were business owners. Fifty-three participants (18.0%) had monthly income less than NT$20,000, while only 18 participants (6.1%) had monthly income more than NT$50,000. However, the largest monthly income group (43.9%) fell into NT$30,000 to NT$40,000.

In summary, by using modes as a guideline, a typical survey participant was described generally as follows: A 30 to 39 year-old married male, who worked as an administrative clerk in a manufacture environment with monthly income of NT$30,000 to NT$40,000.

According to the statistics test results, every item in this section has a mean score greater than 3, which indicated that all of these needs were somewhat important to most of the participants. In which, "increase competitive advantages", with a mean score of 406, seems to be the most importance need. There were four items (career development, chance of promotion, self-assurance, and fulfilling and enjoyable) having mean values larger than 4.

According to the test results, all items in this section had mean scores less than 4, which indicated that none of these factors really satisfied most of the participants. In which, "relationship between teachers and students", with a mean score of 3.84, seems to be most satisfied by the participants, while "tuition fee", with a mean score of 2.17, seems to be least satisfied. Items that were related to instructors, curriculum, and learning materials had higher satisfaction levels than environment-related items did.

Research Hypothesis 1:

H1: There is no relationship between demographic factors and the learning needs of the non-traditional students in college extension programs.

Gender difference caused significant difference to the variable Career Change. The t-value was 2.02 (p=.04). Female participants had stronger desire to change their careers. However, gender did not cause any difference among the other three variables. Participants who were not married tended to have higher desire to the need of Competency Enhancement. The t-value was 3.26 (p=.04). However, the results indicated an opposite direction for the variable Career Change. Married participants tended to have stronger desire for career change. Variables Competency Enhancement, Self-Accomplishment, and Career Change were different among different age groups. Their F-values were 5.27, 2.83, 4.24, respectively ($p<.05$). Variables of Income and Position were significantly different on the factor of Self-Accomplishment. Their F-values were 3.92 and 2.24, respectively ($p<.05$). The results indicated that participants with lower income and lower level of positions had stronger desire for competency enhancement.

The test results showed that there were relationships between demographics and learning needs, therefore, the null hypothesis was rejected.

Research Hypothesis 2:

H2: There is no relationship between demographic factors and the learning satisfactions of the non-traditional students in college extension programs.

Four independent variables in the category of Learning satisfactions were tested separately according to the characteristics of the selected demographic variables. Participants of different gender significantly differed in all aspects of learning satisfactions. Among the four variables, female participants tended to have higher satisfaction with a lowest t-value of 2.73 ($p<.01$). Marital status affected participants' attitudes toward instructional-related Factor with a t-value of 2.07 ($p<.05$). In which, participants who were not married were more satisfied.

Both variables of Age and Personal Income affected participants' attitudes toward instructional-related factor

The younger the participants are, the higher the satisfactions they have. The participants who make the highest income tended to have higher levels of satisfaction. Although the test results showed that the levels of learning satisfaction differ significantly among different income groups, there was no pattern found.

The test results indicated that learning satisfaction differed significantly among occupation groups. Participants who had no jobs had the higher level of satisfaction with a mean score of 3.55 toward instructional-related variables while the businessmen were the least satisfied group with a mean score of 2.84.

This study also revealed that most of the respondents were not really satisfied with curriculum-related variables, since there was not any group's mean score higher than 3.0 except manufacture workers. The test results showed that there were relationships between demographics and learning satisfaction, therefore, the null hypothesis was rejected.

Research Hypothesis 3:

H3: There is no relationship between learning needs and the learning satisfactions of non-traditional students in college extension programs.

Four variables in the learning needs section and four variables in the learning satisfactions were paired and performed paired-sample correlation analysis. Six paired-samples were significantly related (Table 1).

The variable Competency Enhancement was positively related to the variable Environment-related Factor. Participants who had stronger desire for improving their competence tended to have higher satisfaction toward environment-related factor.

The variable Job Advancement was negatively related to the variable Interpersonal-related Factor. Participants who had stronger desire for increasing their opportunity to promotion or getting higher pay tended to have lower satisfaction toward interpersonal-related factor.

The variable Self-Accomplishment was positively related to the variables Instructional-related Factor and Interpersonal-related Factor. Participants who had stronger desire for self-accomplishment and social needs tended to have higher satisfaction toward instructional- related and interpersonal-related factors.

The variable Career Change was negatively related to the variables Instructional- related and Curriculum-related Factors. Participants who had stronger desire for changing their careers tended to have lower satisfaction toward instructional-related and curriculum-related factors.

The results indicated that there were relationships between learning needs and learning satisfaction, therefore the null hypothesis was rejected.

Table 1. *Paired Samples Correlation Results of Selected Paired-Variables*

Variable Pair			n	Correlation	*p*
Competency enhancement	vs.	Environment-related factor	294	.18	.00
Job advancement	vs.	Interpersonal-related factor	294	-.16	.01
Self-accomplishment	vs.	Instructional-related factor	294	.24	.00
Self-accomplishment	vs.	Interpersonal-related factor	294	.35	.00
Careerchange	vs.	Instructional-related factor	294	-.24	.00
Career change	vs.	Curriculum-related factor	294	-.17	.00

Conclusions

Female adult learners were more satisfied with their learning than their counterparts. They also were concerned more about career change, which supported the previous study made by Malin in 1980 that female adult students are more satisfied with their learning compared to males. Younger adults (29 years old and younger) showed stronger tendency on pursuing competency enhancement while the older adult learners (30 years old and older) were more concerned

about career change. Age only showed differences toward learning satisfaction on instructional-related factors in that the satisfaction levels dropped as age increases. This finding seemed opposite to the literature that older adult learners are more satisfied with their learning. This might be attributed to Taiwanese culture and the educational practices in Taiwan that is still traditional. Therefore, a further study in depth on age is needed.

Married adult learners had higher tendency to change their career while unmarried adult learners were more concerned about competency enhancement. It can be assumed that married adults are more likely to have needs to make more money in order to support their families. Current jobs might not be sufficient to meet the requirements of increasing expenses on children's education and other needs. Lower income students had stronger tendency to improve their competency levels which is consistent with the assumption that lower income students are more likely to seek for job advancement and career opportunities. Higher income students in this present study showed higher satisfaction levels than lower income students.

Previous studies found that occupation is a factor that affects student's learning satisfactions (Ma, 1988; Yu, 1998). The finding of the present study is consistent with the literature. None of the groups were satisfied with the environment-related factors. This revealed an important issue that financial concerns are a big problem for adult students re-entering schools. The mean score on Item 16 in satisfaction section was only 2.17, which indicated that tuition fee was one of the reasons that respondents were not satisfied. Financial burden has always been a problem for adult students (Chu & Hinton, 2000).

Position was also a factor affecting student's satisfactions. This study found that the business owners were the most satisfied group toward instructional-related factor, curriculum-related factor, and interpersonal-related factor. There is a negative relationship between Job Advancement and Interpersonal-related Factor. The higher the desire for job advancement, the lower the satisfactions.

As described earlier, Younger groups tended to have strong desire for self-accomplishment. This study also found that students who were seeking self-accomplishment tended to have higher satisfaction levels toward instructional-related factor and interpersonal-related factor. Therefore, it could be concluded that participants who were younger and pursuing self-accomplishment were more satisfied with their learning. Students who cared about their careers were less satisfied with the instructional-related factor and curriculum-related factor. Those students were older with more experiences in life and work. Taiwanese educational practices, which tend to be more traditional than non-traditional, might not be able to meet their learning needs. This could be attributed to the fact, as discussed earlier, that older students were less satisfied with the educational practices in Taiwan. Therefore, one can conclude that the participants who were older and were seeking career changes had unfavorable attitudes toward factors related to instruction and curriculum.

How This Research Contributes to New Knowledge in HRD

1. Learning needs of Taiwanese adult students were significantly different among different groups in almost every aspect of demographic variables. Therefore, the philosophy of "one size fits all" toward adult extension education definitely does not work. Practitioners of adult education in Taiwan have to make their efforts in curriculum design and instructional methods to enhance adult learning.
2. Most of the older learners did not accept traditional teaching techniques. To improve the efficiency of teaching processes and to obtain better learning results, instructors have to learn the concept and applications of andragogy, and to improve their relationship with those adult learners. The Taiwan government should take it seriously and develop an implementation plan such as providing training, workshops, and seminars to instructors who are involved with teaching adult learners.
3. Most adult students considered financial issues. In order to provide opportunities for adult learners to re-enter school, the government might need to provide more help such as student loans for adult learners, and other means to help adult learners to return to schools. Business employers also should provide financial reimbursement for the workers who are seeking advance training and education.
4. Compared with other three factors, learning environment-related factor received lowest satisfaction. Institutes may need to alter their strategies for creating a more suitable learning environment for adult learners. Simplify registration processes, a special hotline for providing information and services for adult learners, A & Q section online service are suggestions to this area.
5. Age has been a factor to adult student's satisfactions on learning, and most of the studies on learning satisfaction indicated that the older the adult learners, the higher the satisfaction levels toward learning. However, this particular study did not show the same pattern. The researchers assumed that this might be attributed to cultural

differences and traditional educational practices in Taiwan. Therefore, further study is needed on cultural issues and educational practices in Taiwan.

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Work/Family Variables Influencing the Work Satisfaction of Tennessee Extension Agents

April B. Martin
Michael Lane Morris
The University of Tennessee

This study explored the relationship between the work and family life of 539 County Extension Agents employed by The University of Tennessee Agricultural Extension Service. The purpose of the study was to examine how the Extension's Agent's family life affected their work satisfaction. The life and parental satisfaction scores of the Agents were the only predictors for work satisfaction. Work satisfaction was not predicted by marital satisfaction or the selected demographic variables including job title, gender, income, employment responsibility, years in present position, length of marital status, age, and education.

Keywords: Extension Agents, Work Satisfaction, Family-work Conflict

Human Resource Development (HRD) has been defined as "the integrated use of training and development, organization development, and career development to improve individual, group and organization effectiveness" (McLagan, 1989). One common area that all employees can relate to is the conflict between family and work or family-work conflict (FWC). In the last twenty years, research in work-family conflict (WFC) has moved beyond family and psychology fields and begun to be implemented in business, management, and human resources. Professionals who strive to improve HRD functions in an organization should develop a better understanding of work-family conflict (Madsen, 2001).

The Extension Service was established in 1914 with the passing of the Smith-Lever Act. It was designed as a partnership between the land-grant universities and the United States Department of Agriculture (USDA). The organization consists of agricultural and family and consumer science agents who work with in either an adult and/or youth audience at the county, district, state, and national levels. While there are countless studies focusing on the relationship between work and family life among other occupational groups, the number of published studies examining the relationship between work and family life of extension workers has been limited (Fetsch & Kennington, 1988; Igodan & NewComb, 1986; and St. Pierre 1984). Thus, this study explored the relationship between the work and family life of County Extension Agents employed by The University of Tennessee Agricultural Extension Service. The purpose of the study was to examine how marital, parental, and life satisfaction influence the work satisfaction of Extension Agents in Tennessee, and also, to make recommendations for how HRD professionals can assist this unique occupational group in maximizing their performance.

Theoretical Framework

Several theories have been offered as a basis for examining and better understanding the relationships existing between work and family. Because the dynamics within the relationship of work and family can be an important source of stress, it can lead to negative and detrimental consequences affecting both home and the workplace (Hammer, Allen & Grigsby, 1997). For this study, two theories (i.e., Family Systems Theory, Spillover Theory) will serve as guiding frameworks.

Family Systems Theory

A primary tenet of the Family Systems Theory suggests that when one member of the system is impacted, the entire system is affected, including all individuals and levels (e.g., micro-system, macro-system, exo-system) of that system (Broderick & Smith, 1979). In reviewing the issue of WFC, the family systems theory gives a set of general principles to assist researchers in making predictions that can be tested. The interactions of individuals within the family system with external contexts (i.e., work) is the primary principle being examined in this study (Boss, Doherty, LaRossa, Schumm, & Steinmetz, 1993).

Spillover Theory

Spillover theory seeks to explain the bi-directional influences between the dynamics of work and family life. This theory explains how positive and/or negative experiences in one domain (e.g., family) can exceed the boundaries of that domain and cross over into the experiences and interactions of another domain (e.g., workplace)

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(Foley & Powell, 1997). For example, when positive feelings and experiences in the home are perceived, then those same attributes can be carried into the workplace. Similarly, when negative feelings and experiences are perceived at home, then dissatisfaction, distraction and/or preoccupation, strain, loss of energy and unhappiness are experienced in the workplace.

Review of the Literature

Parental Satisfaction as Influenced by Work and Family

Parental satisfaction is a parent's overall feelings about the quality of his/her relationship with their children (Umberson, 1989). A dominant theme in parenting research is that the demands of individuals who juggle multiple roles produce more stress, and consequently, this results in a decline of well-being (Barnett, 1994; Bedeian, Burke & Moffett, 1988; Kinnunen, Gerris, & Vermulst, 1996; MacEwen & Barling, 1994; Majewski, 1986; Morris & Blanton, 1994; Schulz, 1993).

Work Satisfaction as Influenced by Work and Family

Globally defined, work satisfaction or job satisfaction is a fulfillment of an individual's needs associated with their work. Initial research on job satisfaction was done to improve productivity. Later research was more humanistic in its approach by trying to improve employees' lives by improving their job satisfaction (Hopkins, 1983). According to Adams et al. (1996), much of the literature concerning the relationship between work and family has focused upon two variables. One area of focus has been on work-family conflict. This type of conflict can produce stress that induces psychological and physical problems. The relationship between work and family is bi-directional as work can interfere with family and family can interfere with work (Foley & Powell, 1997). The second area of focus has been on social support. Social support is usually emotional in nature such as listening, being empathetic, or helping to solve a problem. Researchers have asserted that when there is social support given by individuals at work and/or in the family, the workers' general health and well-being can be positively affected (e.g. Beehr & McGrath, 1992; Cohen & Wills, 1985).

Life Satisfaction as Influenced by Work and Family

Empirical research on life satisfaction as influenced by work and family is very limited. A review of the literature produced only five articles related to life satisfaction. Life Satisfaction is an individual's overall feelings of the quality of their day-to-day life related to his/her work, place of residence, way of life, activities done for enjoyment, and health (Spanier & Thompson, 1984). The relationships between work and family can have an important effect on life satisfaction of an individual (Adams et al., 1996). In a meta analysis study of all published studies that measured work-family conflict and job and life satisfaction, Kossek and Ozeki (1998) concluded that regardless of the type of measure used ("bidirectional, work-family conflict, work to family, or family to work") a negative relationship was consistently found for all types of measures; however, family to work conflict was slightly less strong. In addition, they found that the job-life satisfaction and work-family conflict was stronger for women than men.

Marital Satisfaction as Influenced by Work and Family

Marital satisfaction is the global subjective evaluation of one's feelings about his/her marriage (Sabatelli, 1988). Orbuch, House, Mero, and Webster (1996) found that marital satisfaction tends to be at its highest levels in the early years of marriage and then declines until mid-life at which point it steadily rises as age and length of marriage increases. They also found that reduced work and parental responsibilities in later life are related to the increase in marital satisfaction. The literature has often reported that the predictors of marital satisfaction are different for women than men (Bochner, Krueger, & Chmielewski, 1982; Crago & Tharp, 1968; Kotler & Hammond, 1981; and Terry & Scott, 1987).

Work, Life, Parental and Marital Satisfaction of Extension Agents as Influenced by Work and Family Life

While there are countless studies on the relationship between work and family life among other occupational groups, the number of published studies examining the relationship between work and family life of extension workers has been limited (Fetsch & Kennington, 1988; Igodan & NewComb, 1986; and St. Pierre 1984).

Researchers have found differences for agents according to their area of employment responsibility or job title more than any other variable(Boltes, 1995; Bowen and Keyser, 1994; Fetsch & Kennington, 1997; Igodan and NewComb, 1986; Kelser, 1989; Riggs & Beus, 1993; St. Pierre, 1984;).

The purpose of the study was to examine how family life affects the work satisfaction of Extension agents. Specifically, the focus was on how parental, marital, and life satisfactions influence the work satisfaction of Extension Agents in Tennessee. In this study, four null hypotheses will be tested: (1) There is no difference in the reported work satisfaction, parental satisfaction, life satisfaction, and marital satisfaction of male and female agents; (2) There is no difference in agents' work satisfaction, parental satisfaction, life satisfaction, and marital satisfaction scores by employment responsibility; (3) The agents' work satisfaction, as measured by the Work Satisfaction Scale (WSS), is not predicted by life, marital, and parental satisfaction; (4) The agents' work satisfaction, as measured by the WSS, is not predicted by the demographic variables including age, length of marriage, income, educational level, job title, length of service, area of employment responsibility, have children, or number of children.

Methods

The total number of Extension Agents participating in this study was 298. This provided a response rate of 55%. By area of employment responsibility this number represented 90 (30.4%) agents in Adult Agriculture, 34 (11.5%) in Adult Family and Consumer Sciences, 68 (23%) in 4-H Youth only, 36 (12.1%) in Adult Agriculture and 4-H Youth combined, 33 (11.1%) in Adult and 4H Youth Family and Consumer Sciences combined, 6 (2%) in Expanded Food-Nutrition Education Program (EFNEP), and 29 (9.8%) in other. The agents worked a mean of 49 hours per week, had been in their present position for a mean of 9.53 years, and had been employed with the Tennessee Extension Service for 15 years. The mean age of the respondents was 43 years. Gender within the sample included 168 (56%) male and 130 (44%) females. The racial composition was 277 (93%) White Americans, 17 (6%) African Americans, 1 (.3%) Latin Americans, and 1 (.3%) other.

Instrumentation

The four instruments used as part of the present study were the Work Satisfaction Scale (WSS), Kansas Marital Satisfaction Scale KMSS), Parent-Child Relational Quality Scale (PCR- Quality), and the Life Satisfaction Scale (LSS). In addition to these instruments, a personal history
instrument was used to collect sociodemographic information.

The Work Satisfaction Scale (WSS) (Blanding, 1993) was used to measure the degree of job satisfaction, happiness in the job environment and satisfaction with the supervisor. The WSS is a three item, 4-point Likert-type scale that utilizes a response format ranging from "1 = Not Satisfied At All" to "4= Very Satisfied. The reliability alpha coefficient for the WSS in this study was .70.

The Kansas Marital Satisfaction Scale (KMSS) (Schumm et al. 1986) was used to measure perceived marital satisfaction. The KMSS is a three-item, seven-point Likert-type questionnaire used to assess satisfaction with 1) marriage as an institution, 2) the marital relationship, and 3) the character of one's spouse. The KMSS utilizes a response format ranging from "1= Extremely Dissatisfied" to "7 = Extremely Satisfied" with higher summed scores representing higher levels of satisfaction. Cronbach's alpha for the KMSS in this study was .97.

The Parent-Child Relational Quality Scale (PCR-Quality) (Umberson, 1989) measured the positive content of parent-child relationships. The PCR-Quality Scale is a 4-point, three item Likert-type scale. Responses may range from "1 = Very satisfying, Very happy, or Very well" to "4 = Not satisfying at all, Not Happy at all, or Not at all well". Scores on the scale were recoded to yield higher scores on the PCR-Quality indicating more positive parent-child relationships. For this study, the PCR-Quality Scale reported an alpha of .79.

The Life Satisfaction Scale (LSS) (Spanier & Thompson, 1984) contains five Likert-type items and utilizes a 3-point response format. One sample item is "How satisfying is the work you do?" Responses range from "1 = Not satisfied" to "3 = Extremely satisfied". For this study, the alpha reported by the Life Satisfaction scale was .70.

Results

Results from hypotheses one through four are presented below.

Hypothesis 1

The first null hypothesis stated that the mean for work satisfaction, parental satisfaction, life satisfaction, and marital satisfaction of males would be no different to that of females. The scores for marital satisfaction were highly skewed to the left. Because of the distribution problems, this hypothesis was tested using the Mann-Whitney test. The Mann-Whitney U test is a non-parametric test equivalent to the t test.

For work satisfaction, the Mann-Whitney test gave a test statistic score of 10051.5 ($p \leq .116$); marital satisfaction, a score of 5506.5 ($P \leq .340$); life satisfaction, a score of 10213.5 ($p \leq .252$); and parental satisfaction, a score of 3863 ($p \leq .373$). Mean marital, parental, work and life satisfaction scores did not differ between males and females. Thus, the first null hypothesis could not be rejected.

Hypothesis 2

The second null hypothesis stated that the subjects' work satisfaction, parental satisfaction, life satisfaction, and marital satisfaction scores would show no differences when comparing the agent groups by employment responsibility. As in the previous hypothesis, a non parametric test was used because of the distribution problem with marriage satisfaction. The Kruskal-Wallis H test (a non-parametric equivalent to the one-way ANOVA) was used to determine whether several independent samples are from the same population. There were no differences in work satisfaction ($p = .162$), parental satisfaction ($p = .962$), life satisfaction ($p = .069$), or marital satisfaction ($p = .150$) when comparing the agent groups by employment responsibility. Since the significance value for the tests on each of the satisfaction scores was > .05, the null hypothesis could not be rejected.

Hypothesis 3

The third null hypothesis states that the subjects' work satisfaction as measured by the WSS cannot be predicted by life, marital, and parental satisfaction. Correlation and stepwise regression analyses were used to test this hypothesis. The correlations between work, marital, life, and parental satisfaction and age, length of marital status, hours worked per week, years in present position, years of employment, parents (have children) and number of children. Correlation analyses showed a moderately positive linear relationship between work satisfaction and marital satisfaction (.221, $p<.001$), life satisfaction (.399, $p<.000$), and parental satisfaction (.290, $p<.000$).

A forward stepwise regression analysis was first used to predict work satisfaction using marital, life, and parental satisfaction scores. Only life and parental satisfaction were retained. The model F-test was 15.05 a p-value of <.001. Consequently, the hypothesis of no regression effect can be rejected. Individual t-tests on regression coefficients (Betas) in this model indicated that both life satisfaction and parental satisfaction were significant predictors of work satisfaction (see Table 1).

Table 1. *ANOVA table from a linear regression predicting work satisfaction from marital, life, and parental satisfaction scores.*

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.363[a]	.132	.126	1.58183
2	.413[b]	.171	.160	1.55099

a. Predictors: (Constant), NEWLSAT

b. Predictors: (Constant), NEWLSAT, PARSAT

ANOVA [c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.815	1	55.815	22.306	.000[a]
	Residual	367.823	147	2.502		
	Total	423.638	148			
2	Regression	72.424	2	36.212	15.053	.000[b]
	Residual	351.214	146	2.406		
	Total	423.638	148			

a. Predictors: (Constant), NEWLSAT

b. Predictors: (Constant), NEWLSAT, PARSAT

c. Dependent Variable: JOBSAT

*** $\leq .001$; ** $\leq .01$; * $\leq .05$

Hypothesis 4

The fourth null hypothesis was that the subjects' work satisfaction as measured by the Work Satisfaction Scale cannot be predicted by the demographic variables including age, length of marriage, income, educational level, job title, length of service, area of employment responsibility, have children, or number of children. For the overall regression model, the ANOVA F-test was 1.36 with a significance of .142. Since the p value was >.05 this

hypothesis could not be rejected and it can be concluded that, in this sample, none of these variables are good predictors of work satisfaction

Discussion

In conclusion, data analysis procedures in this study indicated that Tennessee Extension Agents' work satisfaction could be significantly predicted by a reduced model for life satisfaction and parental satisfaction. In terms of sociodemographic variables, it can be concluded from this study that number of children, job title, gender, income, employment responsibility, years in present position, length of marital status, age, and education were not significant predictors of work satisfaction. Specific conclusions for HRD professionals and researchers are identified and discussed below.

The subjects' marital satisfaction, parental satisfaction, life satisfaction, and work satisfaction showed no gender differences. This is partially consistent with past research in other occupational fields. There has been some gender differences found for marital satisfaction in previous studies unrelated to the Extension field (Barry, 1970; Blood & Wolfe, 1960; Bochner et al., 1982; Brinley, 1975; Crago & Tharp, 1968; Kotler & Hammond, 1981; Lee, 1977; Tharp, 1963; and Terry & Scott, 1987). There have also been some gender differences for work or job satisfaction (Bowen, 1994). According to this study, all of the agents are equally satisfied with all satisfaction levels regardless of gender. This could be perceived as a positive finding by some as the findings might suggest that the majority of the employees are equally satisfied in regard to the satisfaction areas analyzed regardless of gender. Other researchers (Kinnumen & Mauno, 1998) have found similar results when examining gender. Future researchers exploring gender differences might consider using multi-method data collection procedures.

It was surprising to find that there were no differences in work satisfaction, parental satisfaction, life satisfaction, or work satisfaction when comparing agents by their area of employment role responsibility. In previous studies, the majority of research has found significant differences for agents according to their area of employment responsibility (Boltes, 1995; Bowen 1994; Fetsch & Kennington, 1997; Igodan and NewComb, 1986; Kelser, 1989; Riggs & Beus, 1993; St. Pierre, 1984). Again, future researchers using multiple methodologies (i.e., mixture of qualitative and quantitative methods) for data collection might capture subtle nuances not always found with single methods. For example, an area of investigation that might be productive would be to qualitatively examine a complex network of work/family interactions that include how an individual with a larger number of salient roles perceives those roles in relation to their expectations and values in other salient roles (Edwards & Rothbard, 2000). Aaron-Corbin (1999) found that the more roles a person acquires and is expected to effectively perform, the more complex and difficult it becomes to fulfill with high satisfaction the responsibilities of other roles.

Life satisfaction and parental satisfaction were found to be significant predictors of work satisfaction. Extension Agents with higher life satisfaction and parental satisfaction scores tended to have higher work satisfaction scores. Findings from this study seem to support other scholarship efforts which has suggested that individuals who more optimistically perceive several of their salient life roles (e.g., spouse, parent, employee) tend to view other roles more optimistically (Aryee & Luk, 1996).

Surprisingly with past research, none of the demographic variables were found to be significantly related to work satisfaction. In previous research, antecedents like age of child, childcare arrangements, education level, gender, number of children, personality type, and length of service have been determinants of work/family stress and conflict (e.g., Aaron-Corbin, 1999; Aryee &Luk, 1996; Carlson, 1999; Eagle, Miles, & Icenogle, 1997).

Implications and Limitations for Research and Practice

Implications for research can be developed from the limitations of this study. Distribution problems were encountered with the global measures of marital, parental, and life satisfaction. However, in previous studies, this instrument, like many other global assessments of satisfaction, has been noted for its inability to produce greater score distributions among non-clinical populations (Fincham & Bradbury, 1987). In addition, this sample was from primarily rural areas type. In future studies, it is recommended that Extension Agents be studied on a broader scale with a national sample. This study would have been enhanced if the spouses had participated. Future human resource development researchers should consider recruiting the spouses of Extension Agents to be involved in their studies. Family Systems Theory suggests that spouses and children might be a rich source of responses as they are also impacted by the resultant stress and conflict stemming from work. Methods that might possibly be used to carry this out include questionnaires mailed to the Extension Agents' homes or telephone interviews. Regardless, these non-work-related satellite members (i.e., spouse, children) should be included by human resource personnel as targets for support, encouragement, and quality of life improvement as they are often a critical variable influencing the overall satisfaction of an employee.

In the past, Corporate America tended to focus on productivity while ignoring the employee and their families. Companies who have operated from this paradigm report issues like decreased individual performance, higher work dissatisfaction, higher rates of tardiness, absenteeism and turnover, higher emotional exhaustion, increased rates of chemical use/abuse, and higher rates of employee reported health problems (e.g., Abbott, DeCieri, & Iverson, 1998; Boles & Babin, 1996; Boles, Johnston, & Hair, 1997; Cohen, 1995; Frone Russell, & Cooper, 1993; Frone Russell, & Cooper, 1997; Kossek & Ozeki, 1998).

More recently however, many companies, through the efforts of human resource development professionals, are beginning to realize that one of the keys to productivity leading to increased profit margins are to provide work environments and education programs that foster the employees' happiness and satisfaction in other salient roles (e.g., parenting workshops, relationship wellness programs) and dimensions of their life. Cohen (1995) and Kirchmeyer (1995) have found in their studies that the way employees perceive their performance in nonworking domains greatly impacts their work attitudes.

Companies and organizations that have embraced more supportive and work/family friendly environments have observed lower levels of depression, somatic complaints, reduced levels of blood cholesterol, reduced economic costs for health insurance claims, lost work days, and productivity (Thomas & Ganster, 1995; Yang, 1998). HRD professionals could be extremely helpful to organizations like Extension Services by helping their administrators recognize the relevant work/family stressors experienced by their employees (i.e., agents) as contributing sources of their work/family conflict. HRD professionals could also assist in the development , design, and implementation of work/family initiatives and programs that would promote satisfaction, encouragement, commitment to their demanding jobs.

The Extension Service has made some strides in this philosophy, but there is still room for improvement. There are many good benefits for an Extension Agent in Tennessee. For example, as a University of Tennessee employee, Agents receive 24 paid days of annual leave and 12 days for holidays. Programs are available such as medical flexible benefits, a sick leave bank, and employer retirement contributions. In most counties, Agents are allowed flexibility in their work schedule which helps to alleviate some of the stress that employees encounter in this job. However, there is no compensation for the many hours of overtime, little recognition or awards for achievement, few opportunities for advancement, and a low salary pay scale.

As an occupation group, Extension Service Agents are clearly identified as helping professionals who work long hours in assisting others meet their life demands and expectations. Similar to occupations with a "calling" (e.g., clergy), many agents exceed normal employment expectations in rendering service and support to their respective communities. Such demands place them at risk for exhaustion, burnout, and higher attrition rates.

In response, several Extension Service organizations in other states have addressed the problem of balancing work and family with their employees and have begun incorporating some of the following:

- Modified organizational policies/practices that added to high stress levels.
- Created programs that increase Agent's coping skills and productivity.
- Funded well-designed program evaluation studies to determine which balancing work and family programs work best with whom.
- Included time and stress management strategies into one's daily life (Fetsch & Kennington, 1997).

What are the advantages to businesses and organizations for implementing WFC initiatives? Research has demonstrated that employees will be more productive and effective if WFC/FWC is managed properly (Madsen, 2001). According to Bond, Galinsky, and Swanberg, (1997) and Thompson, Beauvias, and Lyness (1999), workers who enjoy supportive workplaces and organizational cultures (i.e., flexibility in work arrangements, supervisor support, supportive workplace culture, positive coworkers relations) are more productive, more loyal, have higher levels of job satisfaction, commitment to their employers, and retention. It is hoped and believed that HRD professionals could be instrumental in assisting occupational groups like Extension Services go further in maximizing the human and intellectual capital of its employees.

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The Development of a Competency Model and Assessment Instrument for Public Sector Leadership and Management Development

Sharon S. Naquin
Elwood F. Holton III
Louisiana State University

Traditional job analysis methods used for competency model development can be quite costly and time-consuming. This paper reports on a streamlined methodology and process used to develop a competency model for management development in the public sector. The streamlined methodology for developing the competency model and assessment instrument is fully explicated so that other governmental agencies or organizational entities electing to adopt a validated competency framework might learn from our experiences. The final instrument is also provided should other organizations choose to adopt or modify the model.

Keywords: Instrument Development, Leadership Development, Competency Models

To be competitive in today's results-driven society, both private organizations and governmental entities must build and develop intellectual and knowledge capital. A competent workforce can have a significant impact on the effectiveness and efficiency of an organization. In fact, well-trained, competent workers are critical to the success of any [public or private sector] entity (Snell & Dean, 1992). Employees' ability to integrate their knowledge and skills with the core business processes provides the competitive advantage required in today's workplace (Prahalad & Hamel, 1990).

Organizations are increasingly turning toward competency-based programs to meet the demands of today's knowledge-based economy. According to Hamel and Prahalad (1994), competence represents the synthesis of a variety of skills, technologies, and knowledge streams. A competency-based approach to employee development ensures that all training programs are integrated to produce the desired results. One of the primary reasons for the increased level of competency-based program usage is that these programs can easily assimilate learning activities or initiatives into the daily business processes, rather than traditional training which is often totally isolated from daily business operations. Green (1999) summarized their value by stating, "robust competencies help you define what was done, what is being done, and what needs to be done" (p. 8).

Competency-based training programs are also referred to as skill-based or performance-based training programs. Such programs focus on employees' ability to demonstrate capability. According to Hamel and Prahalad (1994), competence represents the synthesis of a variety of skills, technologies and knowledge streams. A competency-based approach to employee development ensures that all training programs are integrated to produce the desired results. One of the primary reasons for the increased level of competency-based program usages is that these programs can easily assimilate learning activities or initiatives into the daily business process, rather than traditional training which is often totally isolated from daily business operations. Green (1999) summarized their value by stating, "robust competencies help you define what was done, what is being done, and what needs to be done" (p.8).

Characteristics of competency-based training programs include the following (Burger, 1975; Dunn & Mitchell, 1979; Leonard & Utz, 1974; Tromley, 1998).

1. Employees' knowledge and skills are certified through competency-testing rather than credits [courses] taken.
2. Competency-based training is centered on behaviorally stated and measurable objectives.
3. Trainee assessment or evaluation of learning is criterion-referenced rather than norm-referenced.
4. Assessments can take the form of written exams, oral exams, or skill practice demonstrations.
5. In the event of failure, trainees have an opportunity to retake competency-based tests.
6. Trainees receive immediate feedback on assessments.
7. Various forms of media are used in the instructional process to meet trainees' individual learning needs.

Job analysis is typically the first component or step in the process of developing competency-based training. Job analysis identifies the specific tasks that are required. The second step requires identification of the skills necessary to perform each task identified. The criteria for the competency evaluation are based upon these skills. The evaluation criteria clarifies what should be measured or the level at which an employee should demonstrate a

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competency. Assessment instruments are a key element in this process. The assessment instrument can be used to identify both individual and group level skill gaps. Specific tra ining initiatives can be developed and implemented to target these skills gaps. Employees begin the process of training and testing until they reach the desired level of competency.

However, job analysis can be a lengthy and complex process, especially when applied to managerial positions. The challenge is often to find an economical approach that retains the integrity of job analysis without the enormous expense. The focus and purpose of this paper is to report on the methodology and process used so that other governmental agencies or organizational entities electing to adopt a validated competency framework might learn from these experiences. The streamlined process of developing the competency model and assessment instrument is fully explicated. And the instrument is provided should other organizations choose to adopt or modify the model.

The Project

Studies show that in both public and private sectors, organizations led by individuals who demonstrate effective leadership competencies are able to maintain competitive advantage. A competency-based model of sustainable competitive advantage designed by Lado, Boyd & Wright (1992) strongly emphasizes managerial competencies and their impact on the focus and success of the organization. Thus, it is understandable that managerial and supervisory training initiatives have become commonplace in business and industry. Trend setting organizations go to great expense to identify their strategic goals and instill the required leadership/managerial competencies (NAPA, 1997).

The State of Louisiana approached the Louisiana State University School of Human Resource Education and Workforce Development with a request to redesign and restructuring of their management development programs and processes. The primary goal was the desire to incorporate key performance drivers that were based on a set of core competencies with training initiatives, thereby improving the quality and efficiency of state operations. To accomplish this, the project had to link best practices and meet individual and agency needs for training at both fundamental and intermediate levels.

This time consuming effort resulted in a fully implemented an integrated system of supervisory and managerial training that is competency-based and designed to promote best practices throughout the state. The result is a training program that seeks to transform learning experiences into performance-based outcomes. To accomplish this result, the project team had to first identify all competencies required for state managers and supervisors and develop an effective assessment instrument to measure those competencies.

Due to the enormous scope of this project, the work was conducted in phases. The dynamic process was a four-phase process consisting of competency model development; needs assessment; curriculum development; and course design and pilot delivery. This paper, however, will focus only on the first two phases of the project as they serve as the underlying foundation for the success of the entire project. These phases are the competency model development phase and the needs assessment phase.

Phase 1: Competency Model Development

The development and integration of competencies in an organization is a process that requires systems thinking and strategic planning. True competency-based systems are cyclical, built around a series of well-defined tasks. It is therefore understandable that this phase, competency model development, involves a multi-step process.

Step 1.1: Beginning with the U.S. Office of Personnel Management managerial competency model – The process began with an extensive search of managerial competency models that met two basic criteria. The first criterion was that the model had to be well-validated using accepted competency model validation techniques. It turned out that quite a few of the popular models did not meet this criterion. Second, the competency model had to be validated for use in the public sector. After an extensive search, it was determined that the model developed by the U.S. government was the one best suited for use in Louisiana.

More specifically, the model used was the Leadership Effectiveness Framework developed by the U.S. Office of Personnel Management (OPM) Personnel Management Center, and was available free of charge. In 1991, OPM developed the Leadership Effectiveness Survey (LES), "an empirically-based continuum of individual and organizational competencies that are important for effective performance by supervisors, managers and executives" (Eyde, Gregory, Muldrow, & Mergen, 1999). The research basis for this project included a comprehensive review of public and private sector literature (Corts & Gowing, 1992). The development of the LES was based upon information obtained in this literature review. This instrument was administered to a stratified random sample of approximately 10,000 Federal executives, managers, and supervisors (Gregory & Park, 1992). Information obtained from the survey enabled the identification of competency requirements across the three employment levels --

supervisory, managerial, and executive, which ultimately led to the development of the OPM competency model, the Leadership Effectiveness Framework (LEF) (Gregory & Park) (Eyde, Gregory, Muldrow, & Mergen, 1999).

Step 1.2: Customizing language for Louisiana State work environment – The next step was to adapt the language of the task statements used to construct the U.S. competency model. The team of experts from the University and the State spent many days analyzing the language (i.e., stakeholders, work groups, etc.) and making changes where necessary while being careful not to violate the integrity of the original model. The outcome of this process step was the initial version of the Louisiana Managerial/Supervisory Survey LMSS instrument.

Step 1.3: Pilot testing and validation – The resulting competency statements were field tested in focus groups with nine different departments in Louisiana state government. Each focus group included 15 - 25 members, representing a cross-section of managerial levels. These participants were selected by departmental level mid- and upper-level management in conjunction with the project team members. The following criteria were used in the selection process:

1. Employees selected had to be considered high performers within their work groups.
2. Employees selected had to be able to clearly distinguish between the technical competencies (the what) and the performance competencies (the how) of their jobs.
3. Employees selected had to be able to articulate the necessary KSAs for managerial and supervisory positions.

These supervisors and managers were given an opportunity to critique the writing as well as the content of the competencies in these all day meetings. After carefully reviewing the wording and content of each existing statement, the focus group participants were also asked the following questions:

1. Do you think that these competency statements are representative of the tasks that state supervisors and managers must perform?
2. Are there competency statements included on this list that should be eliminated?
3. Are there competency statements that should be added to this list?

Their suggestions and comments were compiled, sorted and reviewed by the project team members. The approved revisions were integrated into a revised version of the LMSS instrument. This instrument was comprised of 24 competencies, each with series 311 task statements or sub-competencies that described an element of managerial behavior from basic to strategic levels.

Step 1.4: Developing alternate versions of the LMSS -- Once the core LMSS model had been developed, its value was leveraged by developing specialized versions of the instrument. Because there was the basic competency model to start with, it was relatively easy to develop versions that were more focused to special situations in state government, further enhancing the value of this project. For example, versions were developed for first line supervisors in the Department of Transportation and Development and the Department of Health and Hospitals. Additionally, the basic version was used as a starting point to create a new supervisory competency model for Department of Corrections supervisors. This model is being recognized nationally for its innovativeness. Using job analysis data from the needs assessments, departments have the option of developing their own customized version of the LMSS instrument.

Step 1.5: New competency identification – Through the two-year test period it became apparent that some additional competencies were needed. In particular, the State had initiatives in areas such as strategic management, customer service, and reengineering. Thus, new competencies were needed to achieve the strategic goals of the State. For example, in the general LMSS competencies related to process management, improvement and redesign were added. In addition, the first line supervisor version needed competencies related to safety and "caretaker" roles. Focus groups and survey methodology were used to collect data for this task.

Step 1.6: Develop other administration formats -- The model and assessment tool have been adapted for a variety of administration formats (i.e., self-rating, dual rating, 360 degree rating). This enhances supervisors' and employees' abilities to set performance improvement goals. Employee participation increases buy-in and enhances commitment to achieving performance goals. Dual rating (employee and his/her supervisor) and 360-degree feedback (employee, supervisor, peers, and subordinates) versions allow for more complete assessment, particularly for individual development and coaching. The 360-degree version (see Appendix A -- Other variations may be obtained by contacting the authors) and the dual rating version enable the employee to actively participate in seeking supervisor feedback and assessing past performance. Self-scoring versions have been developed so that departments and agencies can use it without the University's assistance. The competencies are also being adapted for pre- and post-training assessments and for Internet administration.

Phase 2: Training Needs Assessment in Nine State Agencies

The initial competency model was field tested in needs assessments conducted in nine Louisiana state government agencies over a two-year period. Due to space limitations, this phase is not discussed in detail but has been partially documented elsewhere (Holton, Bates, & Naquin, 2000). Briefly, for three years extensive training needs assessments were conducted in eleven departments within Louisiana government. They encompassed a wide variety of training needs and job types. However, most departments identified managerial and supervisory training as a key need. As a result, resources could be pooled and the work described in this article undertaken.

Over 5,000 managers completed the revised survey instrument that asked their individual perceptions of both skill level and job importance of the 24 competencies. The later scale gave the state the most complete job analysis data on government managers it had ever had. In addition, six of the agencies elected to conduct multi-rater needs assessment in which each individual manager and his or her boss completed the instrument.

Survey data was summarized on both state and agency levels. Each participating agency received summary reports documenting their training needs. The agency level data was retained for development of customized versions of the instrument and curriculum. The state level data was used to refine and validate the LMSS instrument.

Importance of This Research Project

This project represents a very important step in the re-creation of management development programs in state government. To achieve high-performance, private sector businesses and state governments must closely examine their management and leadership competency models and development processes. Doing so provides both individual and organizational level benefits. Both the project team and the State recognized the potential organizational and individual level benefits of this competency model. The organizational level benefits of the LMSS instrument included:

- It aligned work behaviors with organizational goals.
- It served as a means to allow departments to communicate desired work behaviors.
- It helped to create an awareness of performance expectations.
- It identified and emphasized work behaviors that contribute to organizational effectiveness.
- It identified training areas that are comp atible with organizational strategies.
- It can be used to increase the competency level of the supervisory and managerial level workforce.
- It can be used to provide ongoing skill development and career enhancement opportunities.
- It enables customizing workforce development systems to ensure that departmental and agency employees have the necessary KSAs.
- It enables departments to create knowledge workers by developing skills in core competencies.
- It can be used to improve performance through structured performance discussions.
- It can be used to design succession-planning strategies.
- It can be use to design career development opportunities.

There are individual level benefits of the LMSS in addition to the organizational level benefits. These include:

- Ability to create an individual development plan for professional growth.
- Ability to receive feedback from superiors, peers, and subordinates if the 360 version is used.
- Dual rating version allows individual employees to gauge their performance against their superiors' rating to determine gaps in perception.
- Ability to receive individualized assessment of management and supervisory competencies.
- Ability to assess potential for advancement.
- Increase level of understanding of the relationship between personal behaviors and organizational goals and strategies.
- Helps individuals identify the competencies they must develop to advance in state culture.
- Increase awareness of individual strengths and weaknesses.

There is also an important ancillary benefit of this project, which perhaps is the most important benefit here. That benefit is the process that was developed that any other state or business entity can use to re-create its management and leadership development programs.

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APPENDIX - LMSS 360° RATING SURVEY

Directions: As you read each managerial/leadership competency, think about the current job of individual that you are rating, and make two ratings. Rate his/her current level of skill and how important that competency is to his/her job. Use the scales provided below to make your best estimates.

MARK YOUR ANSWERS ON THE SEPARATE ANSWER SHEET PROVIDED

SKILL LEVEL

1	2	3	4	5
None	*Low*	*Moderate*	*Considerable*	*Very High*

IMPORTANCE TO THE JOB

1	2	3	4	5
None	*Low*	*Moderate*	*Considerable*	*Very High*

NOT APPLICABLE - Mark if skill is not applicable at all to the job.

DON'T KNOW – Mark if you do not know have enough information about the job or individual to respond to this item.

ORAL COMMUNICATION

1. Communicates ideas and facts verbally in a clear and organized way.
2. Adjusts style, tone, and level of verbal communication to fit the audience and situation.
3. Listens to others and shows understanding of what they are saying.
4. Anticipates the implications of words and actions inside and outside of the workgroup.

WRITTEN COMMUNICATION

5. Communicates ideas and facts in writing in a clear and organized manner.
6. Adjusts style, tone, length, and level of written communication to fit the audience and situation.
7. Reviews and critiques others= writing in a constructive way.

NEGOTIATING

8. Identifies and understands interests and positions of others (e.g., co-workers, citizens, customers).
9. Applies appropriate negotiation approaches to find mutually acceptable solutions to problems or conflicts.
10. Persuades others to commit to action when appropriate.
11. Gains cooperation from others to get information and to accomplish department/office goals.

PARTNERING

12. Builds productive working relationships with key individuals and groups.
13. Works with a variety of individuals and groups from both within and outside the department/office.
14. Identifies concerns of other interested parties (e.g., program users, community, stakeholders, etc.) to find common ground.
15. Works to overcome barriers to partnering.

INTERPERSONAL SKILLS

16. Provides positive feedback in a way that reinforces or encourages desirable employee behavior.
17. Considers and responds appropriately to the needs, feelings, and capabilities of all individuals.
18. Provides negative feedback constructively.
19. Treats all individuals with sensitivity and respect.

ACCOUNTABILITY

20. Takes personal responsibility for work products and services of his/her group.
21. Assures that his/her workgroup=s results are measured.
22. Tracks results of programs or activities and takes corrective action when necessary.
23. Encourages subordinates to take responsibility for work products and services.

PROBLEM SOLVING

24. Recognizes and defines problems and issues.
25. Gathers enough relevant data about problems and issues to conduct a complete analysis.
26. Uses appropriate methods to analyze and interpret data.
27. Generates mult iple solutions based on data analysis.
28. Recommends appropriate solutions to problems.

DECISIVENESS

29. Acts decisively when quick action is required, even in uncertain situations.
30. Makes difficult or unpopular decisions when necessary.
31. Exercises good judgement by making sound and well-informed decisions.
32. Considers all factors when making decisions (e.g., legal aspects, political implications, organizational culture, media, special interests).

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CUSTOMER SERVICE

33. Identifies customers/clients and other interested parties (e.g., program users, community, stakeholders, etc.).
34. Establishes and uses feedback systems to understand customer/client expectations.
35. Integrates customer/client needs and expectations into development and delivery of services.
36. Improves the quality of services, products, and processes on an ongoing basis.

PERSONAL JOB EXPERTISE

37. Demonstrates sufficient technical knowledge of the program in daily work responsibilities.
38. Applies procedures, regulations, and policies related to program implementation.
39. Understands job expertise needed by subordinates to do their work.

FINANCIAL MANAGEMENT

40. Prepares budget or provides budget input for own area of responsibility.
41. Demonstrates an understanding of the roles of the department/office, Division of Administration, and the legislature in the budget process.
42. Explains or justifies budget requests.
43. Monitors budgets to ensure cost-effective resource use.
44. Makes sound decisions on procurement of equipment, supplies, or services.
45. Demonstrates an understanding of state and department/office procurement regulations.
46. Monitors performance of contractors.

HUMAN RESOURCE MANAGEMENT

47. Anticipates impact of possible changes in staff (e.g., retirement, expertise, T.O.).
48. Takes an active role in recruiting and retaining staff.
49. Provides opportunities for employee orientation, training, and development.
50. Sets performance expectations for subordinates and gives timely feedback about progress.
51. Assesses employee performance and conducts constructive performance reviews.
52. Develops others through coaching and mentoring.
53. Recognizes achievement of performance expectations.
54. Takes appropriate corrective actions with employees.
55. Supports activities that address employee well-being (e.g., safety, health, wellness).

TECHNOLOGY MANAGEMENT

56. Makes maximum use of available information technology to improve the workgroup=s effectiveness.
57. Ensures subordinates are trained and capable in computer applications useful in their job.
58. Anticipates changes in technology that will improve workgroup performance.

ADAPTABILITY

59. Responds constructively to change and setbacks.
60. Maintains a professional demeanor in stressful or difficult situations.
61. Modifies behavior and work methods in response to new information, changing conditions, or unexpected obstacles.
62. Remains open to new ideas and approaches.
63. Works on a number of different projects without losing focus.
64. Adjusts as quickly as possible to new situations that need attention.

MOTIVATION TO SERVE

65. Encourages employees to believe in the spirit of public service.
66. Creates and supports a climate that encourages employees to provide quality public service.
67. Demonstrates a personal commitment to quality public service.

CONFLICT MANAGEMENT

68. Manages or resolves conflicts, confrontations, and disagreements in an appropriate manner.
69. Takes steps to prevent destructive conflict situations.
70. Seeks to resolve formal and informal complaints related to the workgroup=s responsibilities.
71. Proactively manages conflict resulting from organizational change.

DIVERSITY AWARENESS

72. Recognizes the value of individual differences at all levels of the organization.
73. Creates a climate in which everyone is respected and recognized for their contributions.
74. Provides employment and development opportunities to support a diverse workforce.

WORKGROUP TEAM BUILDING

75. Delegates authority with responsibility.
76. Coaches, motivates, and guides others toward goals and accomplishments.
77. Encourages cooperation and teamwork within the department, office, and workgroup.
78. Supports group problem-solving, and participative decision-making.
79. Builds trust and open communication among team members.
80. Seeks consensus among diverse viewpoints to build commitment (buy-in).

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INTEGRITY/HONESTY

81. Models and encourages high standards of honesty and integrity.
82. Promotes ethical practices in all organizational activities.
83. Applies department/office policies in a consistent manner.
84. Demonstrates consistency between words and actions.
85. Exercises power, authority, and influence appropriately to achieve department/office goals.

PLANNING/GOAL SETTING

86. Creates a direction for the workgroup that fits with department=s vision.
87. Motivates employees at all levels to work toward the department=s goals, values, and strategies.
88. Recommends changes based upon a strategic plan for the workgroup.
89. Initiates changes within the scope of the job that are based upon a strategic plan for the workgroup.

EXTERNAL AWARENESS

90. Keeps current with laws, regulations, policies, trends, and other developments that impact the workgroup.
91. Keeps current with general trends and developments that impact the department/office.
92. Analyzes and applies Alessons learneds from other organizations to improve workgroup results.

INNOVATION

93. Identifies need for new approaches, services, and capabilities.
94. Designs new approaches, services, and capabilities to meet identified needs.
95. Takes necessary action to implement new approaches, services, and capabilities.
96. Designs/implements new approaches to improve workgroup effectiveness.
97. Creates a work environment that encourages and recognizes creativity and innovation.
98. Recommends innovative or cutting edge programs and processes.

LONG - RANGE THINKING

99. Recommends effective strategies that fit the external environment which the department/office faces.
100. Applies a long-term perspective when developing strategic plans.
101. Develops goals, objectives, and strategies that fit with the department/office=s long-term vision.
102. Adjusts strategic plans in response to changes inside and outside the department.

CONTINUAL LEARNING

103. Evaluates personal strengths and weaknesses, and assesses their impact on others.
104. Seeks feedback from others and uses it for self-improvement.
105. Invests time and energy in self-development and professional growth.
106. Creates an environment where learning and developing new skills is part of day-to-day work.
107. Develops and implements methods to share knowledge with others who need it.

A Definition of Work Process - *A particular method of doing something, generally involving a number of steps or operations and often including multiple jobs. A process may well extend across workgroups and departments. For example, an application process might begin with paperwork submitted by a citizen, which is then routed through multiple people, possibly in different offices, for various checks and actions before being approved.*

WORK PROCESS MANAGEMENT

108. Manages and plans work as a process rather than focusing only on individual jobs.
109. Defines goals for each work process that they control.
110. Measures and monitors outputs of work processes.
111. Manages work that flows between people and other workgroups.
112. Designs work processes to meet the needs of "customers" of the workgroup.

WORK PROCESS IMPROVEMENT

113. Uses work process performance measures to identify problems.
114. Eliminates work steps that do not add value to the desired outcomes.
115. Changes work processes when a new approach appears to be better.
116. Works to insure that work processes are as simple as possible.
117. Evaluates process performance regularly to determine if changes are needed.
118. Uses process analysis tools (e.g., flowcharts, fishbone diagrams, etc.) to identify and correct problems.

WORK PROCESS REDESIGN

119. Redesigns work processes and procedures when a total change is necessary.
120. Discards old methods of doing things when they no longer work.
121. Evaluates new approaches to work processes continuously.
122. Makes sound decisions about which processes to redesign instead of just improve.
123. Creates a sound rationale for process redesign projects.

Competencies of the Distance Education Professional: Self-Assessment and Authentication Measures to Document Learning

Kim E. Dooley
James R. Lindner
Larry M. Dooley
Texas A&M University

This study used a self-assessment instrument and authentication measures to document growth in distance education core competencies of professionals in Costa Rica. The results include: individual and average growth in core competencies, comparisons of authenticated distance education competency scores to self-assessment scores, and comparisons based upon personal characteristics.

Keywords: Training Competencies, Distance Education, Latin America

Competency modeling has emerged as an important human resource development tool and is being widely used in public and private sectors. Professionals have used competency models to "clarify organization-specific competencies to improve human performance and unify individual capabilities with organizational core competencies" (Rothwell & Lindhom, 1999, p. 104). Organizations provide training so that individuals will become more competent and therefore, more effective in their jobs. It is often assumed that training provides the condition for effective learning, however, "from the individual's perspective, training cannot be assumed to produce learning, nor that learning is always an integral part of training" (Antonacoupoulou, 1999, p. 17).

Transfer of learning and the ability to measure learning outcomes as a result of a training program have become major issues in training and development (Antonacoupoulou, 1999; Kellie, 1999; Smith, 1999). "Currently, the individual's perspective is relatively under-researched, thus much remains unclear about the way individuals perceive the association between training and learning and more significantly whether individuals actually learn from training" (Antonacopoulou, 1999, p.14).

Burchell and Westmoreland (1999) discuss Tomlinson's (1995) interactive model of competence between three interrelated aspects—performance, schema and intellectual processes, located within a particular cultural context. "The schema represents the student's way of thinking about the role and its constituent elements, and signals what will be attended to and valued in the development of practice" (Burchell & Westmoreland, 1999, p. 157). This framework has three functions: 1) *assessment* (both formative and summative), 2) *development* (providing a map and strategies based upon the formative self-assessment and reflective participation in the process of learning, thus providing a basis for self-management of learning, and 3) *communication and reflection* concerning the development and assessment for competence analysis.

Often formative and summative self-assessment instruments are used to determine work roles, outputs and competencies. Other researchers have considered competency identification, modeling, and assessment in Australia, Ireland, the United States, England, the Netherlands, Italy, Germany and Finland (Lindner & Dooley, 2001; O'Brien & Thompson, 1999; Rothwell & Lindholm, 1999; Smith, 1999; Valkeavaara, 1998). These research studies did not include Latin America or Spanish speaking countries, nor were they based upon the core competencies for the distance education professional. This study, therefore, adds to the growing body of literature on using self-assessment instruments to measure perceived growth (learning) in competency-based training programs. It is unique in providing authentication measures to compare self-assessment to evaluation rubrics of observable skills. It was also necessary to determine if the self-assessment instrument would transfer in a cross-national training situation, with simultaneous translation and training materials based upon research and practice in North America.

Theoretical Framework

Rothwell & Lindholm (1999) warn against the ambiguity of terms and definitions. It is important to clarify terminology as we consider the theoretical framework for this study. Knowledge is a body of information applied directly to the performance of a given activity. Skill is a present, observable competence to perform a learned psychomotor act. Ability is a present competence to perform an observable behavior or a behavior that results in an observable product. Competencies, therefore, establish the behavior requirements needed to be successful in a given

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profession or task. Buford and Lindner (2002) define competencies as a group of related knowledge, skills, and abilities that affect a major part of an activity. Competency models can be used: as a recruitment and selection tool; as an assessment tool; as a tool to develop curricula and other training material; as a coaching, counseling, and mentoring tool; as a career development tool; and as a behavioral requirement benchmarking tool (Yeung, Woolcock & Sullivan, 1996).

Based on a competency model developed by the American Society for Training and Development (ASTD), Thach and Murphy (1995) identified roles, outputs, and competencies of distance learning professionals within the United States and Canada. Their top ten competencies portray the dual importance of both communication and technical skills in distance learning. These competencies in rank order were: 1) Interpersonal Communication, 2) Planning, 3) Collaboration/Teamwork, 4) English Proficiency, 5) Writing, 6) Organizational, 7) Feedback, 8) Knowledge of the Distance Learning Field, 9) Basic Technology Knowledge, and 10) Technology Access Knowledge. Williams (2000) replicated this study with similar results. Others have built complete Masters degree programs (Ally & Coldeway, 1999) and Certificate Programs (CDLR, 2001) to provide the coursework or professional development (competence) to work in the growing field of distance education.

Determining, measuring and verifying competencies needed for a given profession are difficult but necessary tasks. HRD professionals are continuously seeking appropriate techniques to document professional growth and learning over time. One method for addressing this problem is to develop and use competency-based and behaviorally anchored rating scales to measure growth. In this study, behavioral anchors are defined as characteristics of core competencies associated with the mastery of content. Competency-based behavioral anchors are defined as performance capabilities needed to demonstrate knowledge, skill, and ability (competency) acquisition. Competency-based behavioral anchors require considerable time and effort to develop, however, they provide more accurate judgments than item-based scales (Buford & Lindner, 2002). Further, such anchors provide trainers and other expert raters with behavioral information useful in providing assessments and feedback to learners. Such information can help learners understand their unique bundles of competencies and increase satisfaction, motivation, learning, and ultimately success on the job (Drawbaugh, 1972). Competency-based feedback can provide a foundation for individual learning plans. Behavioral anchors can also be used to describe minimally acceptable knowledge, skills, and abilities on identified core competencies, thus, giving managers tools and information needed to improve curricula, training materials, evaluation processes, and instructional delivery methods.

Research Questions and Propositions

The purpose of this descriptive study was to authenticate growth (learning) in distance education core competencies of adult professionals who participated in a training and development program in Costa Rica. The study further sought to replicate the use of competency-based behavioral anchors, developed by Dooley and Lindner (2001), as an expert authentication tool for documentation of growth in distance education core competencies. The research questions were: 1) How much perceived growth did learners report in the self-assessment instrument (behavioral anchored scores) for distance education core competencies as a result of participation in the training program? 2) How did the self-assessment instrument (behavioral anchored scores) compare to the authenticated distance education competency scores determined by the trainer using an evaluation rubric? 3) Were there differences in growth based upon personal characteristics (gender, age, years as a trainer/educator, and years of experience in distance education)?

Methodology

The context for this study was a 5-day training program sponsored by the Inter-American Institute for Cooperation in Agriculture (IICA) headquartered in Coronado, Costa Rica. The training program, including all written and oral communications were delivered using simultaneous translation (English and Spanish) at IICA's Center for Distance Training in an interactive video classroom with desktop computers available in a lab format.

There were 28 respondents who were professionals in various fields including health care, engineering, social service, local government, and human resource management. Participants were enrolled in a continuing education course, *Course Design for the Digital Age: Instructional Design and Materials Conversion*. There were 13 female and 15 male participants, most with no previous distance education experience. Respondents were coded based upon gender (F/M), age (1=less than 30, 2=30-39, 3=40-49, 4=50-59), years of experience as a trainer/educator (0=0, 1=1-5, 2=6 or more), years of experience in distance education (0=0, 1=1-3, 2=4 or more), and a one to two letter unique identifier to determine any trends in the data, but still provide confidentiality.

The content for the training program was developed based upon the competencies for the distance education professional (Thach & Murphy, 1995). The researchers clustered the distance education competencies into six major themes or "core" competencies needed by practitioners (See Figure 1).

Figure 1. Core Competency Behavioral Anchors

Core Competency	Behavioral Anchors
Adult Learning Theory	• Philosophy of Teaching • Adult Learner Characteristics • Learning Styles
Technological Knowledge	• Web Development Tools • Videoconferencing • Computer Hardware/Software • Communication Tools (e-mail, threaded discussion)
Instructional Design	• Course Planning and Organization • Gaining Attention • Writing Instructional Objectives • Active Learning Strategies • Evaluation
Communication Skills	• "Presenting" Content • Questioning and Facilitation • Feedback • Collaboration/Teamwork
Graphic Design	• Formatting Visuals for TV Display • Design Considerations for Web-pages • Multimedia Components
Administrative Issues	• Support Services • Copyright/Intellectual Property • Technology Access • Financial Considerations

The self-assessment instrument was developed by Dooley and Lindner (2001) and has been found to be valid and reliable. The instrument was used as a tool for the trainees to measure growth (learning) in the six core competencies. The researchers chose a stair-step approach (rather than a continuum or Likert scale) to visually represent progression from novice (0) to expert (7). The numbers were intended to measure perceived growth rather than any statistical significance.

Participants were given the instrument the first day of the training program and again after completion of the program. Respondents provided open-ended verification of the numerical ratings along the side of each core competency "step" at both viewings of the self-assessment instrument. An example of verification was included in the instructions. Participants were also asked to describe any attitudinal changes as a result of participation in the training at the completion of the program. A professional translator hired by IICA translated the instrument into Spanish.

The researchers used competency-based behavioral anchors at level 2, 4, and 6 and trainees' written verifications to authenticate ratings (Dooley & Lindner, 2001; Smith & Kendall, 1963). A person with a score of seven demonstrates expertise in the core competency area. A person with a score of four would be considered average and a score of one would be novice. Additionally, an assessment rubric was used to evaluate training participants on the last day as they presented a lesson delivered using interactive video equipment. The rubric served as an authentic assessment tool to document demonstrated competence in the core competency areas. Trainees were evaluated on eight constructs using a five-point scale. Summing scores and multiplying by 2.5 to convert to 100-points calculated a weighted final score.

Results and Findings

The results of this study were reported in four areas: (1) individual behavioral anchored scores and total growth in core competencies, (2) individual authenticated distance education score, (3) average distance education score by personal characteristics and, (4) authenticated growth by personal characteristics. In Table 1, the individual, average, and total growth is indicated for each of the six core competencies.

Table 1. *Individual Behavioral Anchored Scores and Total Growth in Core Competencies (N=28)*

	Adult Learning Theory		Technology Knowledge		Instructional Design		Communi-cations Skill		Graphic Design		Administra-tive Issues		
Code[a]	B[b]	A[c]	B[b]	A[c]	B[b]	A[c]	B[b]	A[c]	B[b]	A[c]	B[b]	A[c]	Total Growth
F110G	3	5	3	5	1	5	2	5	2	4	5	6	14
F200C	3	4	1	3	3	5	2	4	1	4	3	5	12
F200U	1	6	2	5	1	6	1	6	1	6	2	6	27
F200X	1	3	2	5	1	3	2	4	2	5	3	5	14
F201S	1	3	4	5	1	3	2	3	3	4	2	3	8
F202P	1	5	3	5	1	4	2	5	1	3	1	5	18
F211B	2	4	1	3	4	6	3	5	1	5	1	3	14
F211D	1	5	1	5	1	5	1	4	1	5	4	6	21
F300M	1	5	2	7	1	5	3	7	1	5	2	5	24
F301F	1	7	1	7	1	7	1	7	1	7	2	7	35
F301Z	4	5	2	4	5	6	5	6	1	3	2	3	8
F302K	1	6	2	6	1	6	1	6	1	7	1	7	31
F312L	3	4	4	5	7	7	7	7	4	5	5	6	4
M100N	1	4	6	7	1	4	1	4	1	4	1	4	16
M100W	2	6	6	6	3	5	4	6	4	6	1	5	14
M101E	1	1	7	7	2	2	3	3	4	4	6	6	0
M101O	4	6	3	6	4	6	4	6	1	6	6	6	14
M111J	2	4	4	5	3	5	4	5	5	5	5	5	6
M111T	1	5	3	6	2	5	4	6	4	6	1	6	19
M112Y	1	3	6	7	2	5	5	6	6	7	2	5	11
M212AB	3	5	3	4	4	5	2	3	1	4	1	6	13
M212Q	1	5	5	[illegible]	1	5	5	6	5	6	7	7	12
M222A	7	7	3	[illegible]	7	7	5	5	1	1	1	1	0
M322H	3	6	7	[illegible]	3	7	3	7	7	7	4	7	14
M400AA	5	6	1	6	4	6	4	6	1	6	4	6	17
M400V	1	6	1	6	4	7	4	7	1	6	1	7	27
M401I	1	6	1	6	4	7	4	7	1	6	1	7	27
M421R	3	5	2	5	3	6	3	6	1	5	1	5	19
Average	2.1	4.9	3.1	5.5	2.7	5.4	3.1	5.4	2.3	5.1	2.7	5.4	15.7

Note: Respondent Code[a], 1st letter=gender, 1st number=Age, 2nd number=Years as educator, 3rd number=Years using distance education, 2nd-3rd letter=one or two letter unique identifyer; B[b]=Before; A[c]=After

Before the course, 24 of the 28 participants rated their level of competence in Adult Learning Theory below average; 18 trainees rated their competence above average after the course. The average Adult Learning Theory beginning score was 2.1 and finishing score was 4.9. The participants provided open-ended verification of their current core competency level. The researchers made authenticated assessments by comparing self-reported data with the competency-based behavioral anchors. One trainee that grew, from below average before the course to above average after the course, indicated that his instructional design team lacked knowledge in adult learning theory. As a result of the training program, he acquired the knowledge base necessary to incorporate adult learning theory into online training (M322H). Another participant who grew from novice to average indicated "I have learned new training methods and styles that will serve to further me along in my career" (M100N). Yet another participant who grew from average to above average already had previous education in adult learning theory and experience in training adult learners. This training program "refreshed her understanding of adult learning theory" (F301Z).

For Technology Knowledge, 19 rated their level of competence below average at the beginning of the training program and 23 rated their competence above average by the end. The average starting Technology Knowledge score was 3.1, and the ending was 5.5. One respondent who was below average at the start of the program and above afterwards stated that she knew "the basics on the use of videoconferencing equipment" but now has "more confidence in the equipment and how to act in front of it" (F302K). Another who was average before and above at the end stated that she was responsible for the "organization of a teleconference course directed at 550 persons at 22 centers" and by the end of the course she learned more interactive strategies to "permit me to use the course adequately" (F312L). A third participant who was a novice at the start and average by the end stated that she "only has email to communicate internally at the institution" and now adds knowledge and skill on the use of videoconferencing (F211D). As a final example, a trainee who was already a "6" and grew to a "7" stated that "I have experience working with web equipment and tools but not as applied to education. What is left is applying it directly at the institution and seeing its results" (M112Y).

In the core competency area of Instructional Design, 19 participants were below average as they started the program and 23 were above average at the conclusion. The average change in score in Instructional Design was from a 2.7 to a 5.4 by the end of the training. A participant who was below average at the beginning of the training program and above afterward noted "I have planned a course (even though it's just a practice) with all the stages and I will take with me many new ideas for my institution" (F200C). Another who was already above average at the beginning and grew only slightly indicated that she had "prepared various training [materials] for different audiences and objectives with different formats" but now she has "learned the difference of preparing educational content, both traditional and at a distance" (F301Z).

Communication Skills had the fewest number of participants below average at the beginning of the program (16) and had 21 above average by the end. The average score in this area went from 3.1 to 5.4 over the course of the program. One participant who was below average at the beginning and above after training noted that she "understands the concepts and has applied them to her work" but now has "improved the use of communication" (F110G). Another noted that "after the course without a doubt I will make the presentations and ask the questions more according to the objectives" (F211B). One trainee who grew from a "2" to a "6" verified that "adaptation has not been easy...There are major considerations at a distance to make the videoconference more versatile and interactive" (M322H).

Graphic Design had 20 participants below average as they began the program and 19 above average at its completion. The average score changed from 2.3 to 5.1 from beginning to end. A respondent who was a novice at the beginning of the training replied, "I don't have experience with technology, only with audiovisuals, posters, transparencies, blackboard, and some video." She verified that she "advanced a lot on the preparation for TV material" (F301Z). Another began with some skill in the development of WebPages and PowerPoint presentations. By the completion of the training program she was able to "use and design materials for a videoconference" (F201S).

For the last core competency, Administrative Issues had 19 trainees below average at the start and 23 above average at the finish. The average growth changed from 2.7 to 5.4 as a result of attending the training. Many respondents mentioned new knowledge gained in the area of intellectual property and copyright (F312L, M100N, F211B, F211D). "After the course I will include in my presentations and creations some indication as to the author's rights, something I didn't realize for these cases" (F211B). Trainees' total growth ranged from 0 to 35: seven trainees had a growth between 0-11; nine had a growth between 12-14; five between 15-19; and seven between 20-35. The average total growth for a trainee was 15.7.

At the end of the training workshop, trainees developed and delivered a "lesson" via interactive video. The purpose of the activity was to synthesize and integrate the core competency areas and to demonstrate level of expertise. A rubric was used to evaluate trainees on the constructs delivered in the training program. As shown in Table 2, authenticated distance education competency scores and level of expertise results were calculated to document learning and professional growth. A result score (based upon the rubric) was assigned to each trainee to indicate their level of expertise and to identify areas needing further growth. For example, a rubric score of 95-100 would mean the participant demonstrated overall expertise and would be given a result score of 1. In contrast, a participant below a 70 on the rubric would demonstrate novice and receive a result score of 4.

At the end of the workshop, nine trainees demonstrated expertise or near expertise (result scores of 1-1.5). Five trainees demonstrated novice or near novice at the end (result scores 3.5-4.0). The researchers were also interested if personal characteristics or individual competency growth in the program was different by authenticated distance education scores (Table 3). Both males and females had equivalent distance education scores, however, females (17.7) had higher levels of overall growth than males (13.8). Younger trainees (39 and younger) had lower levels of individual growth (11.5-13.9) and demonstrated higher levels of expertise (85.3-86.3) than older trainees (40 and over) who had higher levels of growth (19.3-22.5) and lower levels of expertise (77.1-71.3). Distance education scores were similar based on years of experience as an educator or trainer. Participants with no experience as an educator demonstrated the highest levels of growth. Trainees with one to three years of distance education experience demonstrated higher levels of competence than those with four of more years of experience. Trainees who had the highest (20-35) and lowest (0-11) overall growth by score, demonstrated a higher need for overall growth and training (result scores of 3), than trainees that demonstrated growth from 12-19. Those that had the highest authenticated distance education score demonstrated the lowest levels of individual growth.

Table 2. *Individual Authenticated Distance Education Score (N=28)*

Respondent Code[a]	Rubric Score[a]	Result[b]
F110G	77.5	3
F200C	100.0	1
F200U	92.5	1.5
F200X	77.5	3
F201S	75.0	3
F202P	85.0	2
F211B	100.0	1
F211D	77.5	3
F300M	92.5	1.5
F301F	75.0	3
F301Z	65.0	4
F302K	85.0	2
F312L	75.0	3
M100N	85.0	2
M100W	85.0	2
M101E	90.0	1.5
M101O	90.0	1.5
M111J	70.0	3.5
M111T	92.5	1.5
M112Y	92.5	1.5
M212AB	85.0	2
M212Q	85.0	2
M222A	90.0	1.5
M322H	70.0	3.5
M400AA	75.0	3
M400V	67.5	4
M401I	67.5	4
M421R	75.0	3
Average	82.1	2.5

Note: Score[a]=Authenticated Distance Education Score Out of a Possible Score of 100; Result[b], 1=Demonstrates Expertise, 2=Suggests Growth in Particular Areas, 3=Suggests Overall Growth Needed, 4=Demonstrates Novice

Conclusions, Recommendations, and Contributions to New Knowledge

As we examine whether adults are learning as a result of training programs, there is a continued need to evaluate and authenticate growth. The findings of this study contribute to the body of literature related to assessing distance education competencies for adult learners within various organizations in Costa Rica and within a cross-national context. Although the researchers were native English speakers with education and training in the United States, the simultaneous translation of distance education competencies transferred effectively, demonstrated by multiple data sources and authentication measures. The self-assessment instrument and verifications were translated from Spanish to English for interpretations in this study. It is believed that the researchers adequately captured the essence of respondents' perceptions, although it is recognized as a limitation of the study. It is recommended that this model be replicated in other distance education training programs and cross-national settings to evaluate the extent the results presented here would be similar and applicable.

Although individuals' distance education competencies varied, results of this study showed that on average participants were below the average (4) at the beginning of the training program and above afterward. Participants increased approximately two steps in each of the core competency areas. At the end of the workshop, some trainees demonstrated expertise or near expertise (result scores of 1-1.5) while others were novice or near novice (result scores 3.5-4.0). While nearly all participants showed growth in distance education competence, there remains a need for specific training for some and overall training for others. The authenticated distance education score and result score provides outcome assessment measures useful for trainers and managers for comparing results of self-assessment and observable behaviors of competence.

Viewing the data by personal characteristics provided interesting discussion, and poses more questions for further research. It is understandable that younger trainees would have lower levels of individual growth and higher levels of expertise than older trainees due to the nature of the content delivered (distance education). Attitudinal issues would also come into play because of techno-phobia or lack of experience with technology in older participants. Additionally, participants with no experience as an educator demonstrated the highest levels of growth. What was surprising was that trainees with one to three years of distance education experience demonstrated higher levels of competence than those with four of more years of experience. This finding is incongruent with

expectations of years of experience and level of competence. In general, these individuals (F312L, M212Q, and M322H) indicated that they possessed above average levels of competence and showed the lowest levels of overall growth. The authenticated distance education scores and result scores refute the trainees self-assessment of their competence indicating that they may be more *confident* than *competent*.

Table 3. *Distance Education Score and Individual Growth by Personal Characteristics (N=28)*

Gender	n	Rubric Score[a]	Result[b]	Growth[c]
Male	15	81.3	2.5	13.8
Female	13	82.9	2.5	17.7
Age				
<30	8	85.3	2	11.5
30-39	10	86.3	2	13.9
40-49	6	77.1	3	19.3
50-59	4	71.3	3.5	22.5
Years as Educator				
0	16	81.7	2.5	18.3
1-5	9	83.9	2.5	12.4
6 or more	3	78.3	3	11.0
Years Experience With Distance Education				
0	20	81.5	2.5	16.7
1-3	5	87.5	2	14.6
4 or more	3	76.7	3	10.0
Growth				
0-11	7	79.4	3	
12-14	9	85.6	2	
15-19	5	82.5	2.5	
20-35	7	79.6	3	

Distance Education Score[a]	n	Growth[c]
65-74	5	16.0
75-84	8	16.5
85-89	6	17.3
90-100	9	13.4

Note: Score[a]= Authenticated Distance Education Score Out of a Possible Score of 100; Result[b], 1=Demonstrates Expertise, 2=Suggests Growth in Particular Areas, 3=Suggests Overall Growth Needed, 4=Demonstrates Novice; Growth[c]=Authenticated Student Growth Based on Competency-Based Behavioral Anchors

Trainees who had the highest (20-35) and lowest (0-11) overall growth by score, demonstrated a higher need for overall growth and training (result scores of 3). Trainees who grew at the highest rates were unable to assimilate the entire competency set presented during the training program and therefore, had authenticated scores that suggested a continued need for training and development. As mentioned previously, authenticated scores of trainees with the lowest overall growth refute the trainees' perception of their competence. One of the reasons why it is so important to authenticate results of trainees, rather than depend on self-assessment scores alone, is to document learning rather than perceptions. Those that had the highest authenticated distance education scores also had the lowest levels of individual growth, suggesting that the training content may not have been challenging for their level of expertise.

Without a way of documenting competencies as trainees enter a program, trainers cannot develop individualized instruction. At best, trainers would be forced to teach to "the middle." Unfortunately, this is often the case thereby providing training material that is too challenging for some and too simple for others. For example using this model, a trainer could design and deliver individualized instructional sequences to provide the greatest opportunity for growth when confronted with a learner with little to no competency on any of the measurement items, and one that has high levels of competency on most of the items.

This competency model worked well as a trainee self-assessment tool and as a behavioral benchmarking tool (Yeung, Woolcock & Sullivan, 1996). What is not known is the numerically acceptable level for competence. Is a step 4 or 5 acceptable or should participants be at a step 6 or 7? Obviously in HRD, trainers and managers must make judgments on acceptable levels of competence in order to transfer the newly acquired knowledge, skills, and abilities to the work environment. This model can be used to document minimally acceptable levels of competence, competency growth, or a combination of the two.

Competency-based behavioral models have been used to help adult learners understand their core competencies, and may subsequently increase satisfaction, motivation, learning, and ultimately success in training programs (Drawbaugh, 1972). This study included all three functions as indicated by Burchell and Westmoreland (1999): 1) self-assessment (both at the beginning and end of the training program), 2) development of a learner-centered training program based upon the self-assessment and reflective participation and management of learning, and 3) communication and reflection through the use of feedback given from the results of the self-assessment and evaluation rubric (authentication). The competency-based, behaviorally anchored instrument used in this research provides a credible, transferable, and dependable model for evaluating and authenticating trainee growth (Dooley & Lindner, 2001). Use of anchors to authenticate results overcomes limitations of self-administered rating scales that are typically used to measure perceptions of competencies. This model can serve as an additional tool for HRD managers to measure the quality of training and addresses public and political pressure to explain learning.

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Human Resource Development Competencies for Effective Performance in a Knowledge-Based Economy: A Study of HRD Professionals in Singapore

A.. Ahad M. Osman-Gani
Nanyang Business School
NTU, Singapore

This paper presents empirical findings of a study conducted to identify the key competencies required by modern HRD, professionals to perform effectively in a knowledge-based economy. It also attempted to identify the appropriate training and development strategies used to develop those competencies. It was found that most respondents associated KBE with knowledge management, life-long learning and intellectual assets. The identified key HRD competencies were contrasted with the findings of ASTD's latest study.

Keywords: HRD Competencies, Knowledge-Based Economy, Singapore

The accelerated phase of transition from "industrial age" to the new "information/digital age" in a knowledge-based economy (KBE) demands new management and human resource development (HRD) competencies of managers in today's competitive and dynamic business environment. KBE has received much attention recently, and many countries, like Singapore, USA, Canada, and Malaysia, are making relevant adjustments in their national policies on economic infrastructure and human resource development in order to cope with the new demands of the KBE.

Why is there so much hype about KBE? Is it like what Greenspan (1998) said, the economy is now different from the past? Knowledge Economy or New Economy/Digital Age has evolved due to the emphasis on the importance of knowledge in the changing business world. In this new millennium, the key to survival is through intellectual capital, and only those with knowledge and information will succeed. In the past, the main sources of wealth were from natural and physical resources. However, in business world today, wealth is determined by intangible assets - knowledge and information (Dunning, 2000). As new business models evolve everyday, having new knowledge and information is essential to remain competitive. Thus, under-skilled employees face difficulties in getting or retaining jobs, and even the highly qualified professionals face challenges now in updating themselves continuously. Therefore, to acquire and update knowledge is critical for survival in today's KBE.

Some people advocate the significance of KBE by attributing it to technological innovations and breakthroughs as well as to the globalization of business. Singapore's Economic Development Board (EDB) thought likewise, referring KBE to two broad trends - globalization of business, and revolution in technology. However, no consensus has yet been reached on the meaning and interpretation of KBE. KBE has been defined as one "that is directly based on the production, distribution and use of knowledge and in formation" (OECD, 1996). Browning and Spencer (2000) mentioned, KBE is a world in which people work with their intellectual assets. Different perspectives on KBE could now be found in the literature.

Knowledge Based Economy (KBE)

Although there has been much discussion on KBE in the popular media, there is still no consensus among scholars and practitioners regarding its definition and its key features. Dunning (2000) referred KBE "essentially to the increasing importance of knowledge as the source of wealth creation in society". This contrasted to the times when richness was built on ownership of land and raw materials (Solvell& Brinkinshaw, 2000). KBE is also envisaged as one "based on the application of human know-how to everything... (where) more and mo re of the economy's added value will be created by brain rather than brawn" (Ong *et al.*, 1999). Alee (2000) defined KBE as one based on ideas, and infinite resource. Sunoo (1999) stated, "KBE increasingly requires workers who demonstrates basic literacy, occupational skills and winning personality traits". Furthermore, the transition of an industrial economy to KBE was described as the process of "creative destruction" (Chua, 2000). In addition, O'Leary (2000) said that information and speed are the oxygen of New Economy. KBE was also defined as "the product of rapid progress in digital technologies, combined with accelerated economic globalization" (Liikanen, 2000). Sachdev (1998) characterized KBE as rapid technological change, the continuous restructuring of organizations towards higher value-added activities, and changing job requirements. Chase (1997) referred KBE as the new knowledge age "characterized by a global economy in which knowledge is becoming the key resource".

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Most authors agreed that knowledge is the source of competitive advantage in KBE. Bawany (2000) mentioned, "KBE is one in which information and knowledge, rather than material resources, drive business activities while creating key sustainable competitive advantage". As there were different views on KBE, this study aimed to unravel the common views and interpretations of KBE.

Competencies

KBE requires knowledgeable workers. Therefore, to be successful in KBE, individuals need to acquire new combinations of skills and competencies (Abell, 2000). Moreover, to perform effectively, they must possess and use appropriately a wide variety of competencies (Dubois, 2000). Spencer *et al.* (1993) defined competency as an underlying characteristic of an individual, causally related to criterion-referenced effective and/or superior performance in a job. Competency is defined as "an underlying characteristic of a person" (Boyatzis, 1982). Individual competencies are the applied skills, knowledge, abilities and behaviors of the organization's workers that are critical to its success. There were many studies on individuals' competencies. One of the significant studies (Boyatzis,1982) aimed to determine characteristics of managers related to effective performance in different management jobs of various organizations, and divided the competencies into different clusters. Boyatzis also did an analysis by sectors and management levels. Competencies in this study were also categorized into different clusters, where the data was analyzed according to different individual contributors like professionals, managers, etc. For instance, the key competency for technical professionals was achievement orientation, which focused on measuring performance. In addition, *LOMA's Competency Dictionary* found that willingness to learn, stress tolerance, initiative, adaptability, multi-tasking and motivating others were important (Anonymous, 2000). In another study by MOHR Development Inc. (Kaydo, 2000), eight competencies were identified with regard to top-performing sales managers.

Studies were also conducted on HRD professionals' competencies (McLagan, 1983; 1989; Rothwell *et al.*, 1996), most of which was sponsored by the ASTD. A recent study used McLagan's (1989) findings as a basis for identifying new competencies in today's workplace (Rothwell *et al.*, 1999). However, this approach was different from the previous studies as the authors attempted to identify the required competencies before grouping them into roles.

In Singapore, increased attention has been drawn recently to the relevant issues of KBE, when government undertook actions to prepare the people for the new age. Singapore's Senior Minister said, "unlike a worker in the repetitive machine-based age, tomorrow's worker must depend more on his own knowledge and skills" (STa, 2000). The Minister of Manpower also emphasized that, "in the new millennium, it is the intellectual capital which will determine the outcome of economic competition"(http://www.gov.sg/mom). To help prepare the workforce for KBE, Singapore Productivity & Standards Board (PSB) launched a nation-wide critical enabling skill training (CREST) program. CREST encompasses seven critical enabling skills targeted at all levels of the workforce - from managers to supervisors and workers. These critical enabling skills were also identified by the ASTD through intensive research. Many countries like Britain, Canada and Japan had endorsed these critical enablers. To assess their relevance for Singapore, these skills were field-tested and confirmed with over 300 organizations here (Sachdev, 1998). With the launch, future training programs are expected to concentrate on developing these skills. Some recent publications have highlighted overall T&D practices as well as HRD strategies in Singapore (Osman-Gani and Tan, 1998; Osman-Gani and Tan, 2000). But KBE issues were not specifically addressed in those articles.

Although much has been said about the KBE, No study has yet been found, especially in the field of HRD that identified critical competencies for effective performance in a KBE. Very little research has been done on how new competencies will affect HRD professionals' job performance. Furthermore, no study was found that has investigated this issue in Asian context. Therefore, a significant research gap exists in this field. This paper attempts to contribute to the literature by bridging this research gap. As KBE issues are increasingly surfacing among companies in Singapore, empirical information on this is in high demand from managers and HRD professionals. This paper presents some empirical findings of a study conducted to identify the key competencies required by modern managers and HRD professionals for effective performance in KBE. The study also attempted to identify the appropriate training and development strategies used to develop those competencies.

Research Questions

In order to address the above objectives, the following research questions are formulated:

1) What are the key features of a KBE?
2) What key competencies are required from HRD professionals for effective performance in a KBE?

3) Are there significant differences among the respondents' views by their company size, business sectors, and types of ownership?
4) What types of training programs are appropriate for developing the HRD competencies in a KBE?
5) What training delivery methods should be used for developing the HRD competencies in a KBE?

Research Methodology

This study was conducted using an exploratory field design method. A two-pronged approach consisting of interviews and survey were used to gather primary data. It was conducted in collaboration with Singapore Training and Development association (STADA). As an institutional member of ASTD (American Society for Training & Development), STADA provides T&D services to its members, consisting mainly of HRD professionals working in diverse industrial sectors of Singapore. It is the only local HRD professional body, which offers professional development programs (e.g. Diploma in Strategic HRD). The study was targeted at Singapore-based companies' HR managers and practitioners. The sample size consisted of 700 HRD professionals randomly selected from STADA's membership database. The respondents were General/Administrative Managers, HR managers/professionals working in MNCs and local companies. Besides the primary data, secondary information was also gathered from published materials. Prior to the survey, intensive face-to-face interviews were conducted with eight HRD professionals from different industrial sectors in order to gather their first hand views on the relevant aspects of KBE, which were useful in drafting the questionnaire. Together with the findings from the literature review, the interview findings were incorporated into the survey instrument development. The questionnaire was divided into several parts: features of KBE, general management competencies (Boyatzis,1982; and Page *et al.* 1994), HRD competencies (McLagan, 1989; Brock *et al.*, 1996; Piskurich and Sanders, 1998; Rothwell *et al.*, 1999), and T&D strategies (O'Connor *et al.*, 1996; Noe, 2000). The other two parts consisted of: (a) company information, (b) demographic information of respondents. A five-point Likert-type interval scale was used to collect the response data. Pilot testing of the questionnaire was done during a regional HRD Conference where 60 copies of the draft questionnaires were distributed to the delegates. The feedback were then compiled and incorporated into the final questionnaire. A panel of experts comprising of STADA's training professionals and the professors of NTU was used in order to test for the content and face validity of the questionnaire. A test-retest method was used to test for the reliability of the instrument. The questionnaires with cover letters and self-addressed envelopes were sent out via local mail to the sample STADA members. Some questionnaires were also sent through e-mails as attachment files. Due to the initial low response rate, two rounds of follow-up emails were sent out. In order to achieve a higher response rate, incentives such as a small gift bag was promised for prompt and complete responses. Subsequently, three rounds of additional follow-up calls were made by the STADA personnel. Personal administration of the questionnaires to selected HRD professionals were also made. The returned questionnaires were checked for completeness and consistency before data analysis. The collected data were compiled into a database using the Statistics Package for Social Science (SPSS). Descriptive and multivariate statistics were computed and frequency tables were generated for responding to the research questions.

Results and Discussions

Profiles of Respondents

A total of 100 completed responses were obtained, providing a response rate of 14.3%. The responses represented eight different business sectors, with the primary areas being, management consultancy (25%), manufacturing (23%), finance and business services (FBS) (12%), transport and communication (T&C) (12%). The companies were reclassified into MNCs and local companies, and most of the respondents (63%) were from the local companies. The respondents represented organizations of varying sizes: most companies (51%) had more than 200 employees. In terms of the demographic characteristics of the respondents, majority (55%) of the respondents was found to be less than 40 years of age, and about 53% of the respondents had at least 15 years of job experience. With regard to their HRD experience, majority (69%) had at least five years of experience. A large majority of respondents (83%) had at least a bachelor degree, and most respondents (70%) held positions of senior and middle management levels. The gender composition of the respondents was well balanced (48% female; 52% male).

Research question 1: What are the Key Features of a KBE?

The responding managers' views on the interpretation and key features of KBE were identified. The descriptive statistics are presented in Table-1. The top five key features of KBE are found to be: (a) knowledge management, (b)

lifelong learning, (c) "KBE is a world in which people work with their intellectual assets", (d) "KBE involves the changing of people's mindsets" and (e) "KBE involves rapid change".

Knowledge management was rated very highly as a key feature of KBE, which is consistent with the findings of the literature review. Knowledge management is about encouraging people to share knowledge and ideas to create value-adding products and services (Chase, 1997). Therefore, it is critical that companies manage knowledge efficiently by sharing the new knowledge among its members in order to be successful in a KBE. In addition, "life-long learning" and "working with intellectual assets" were also highly rated by the respondents. People have to constantly upgrade themselves and learn to gain 'updated' knowledge so that they do not become 'obsolete' in today's competitive business world. This view might have been further influenced by Singapore leaders' recent emphasis on life-long learning. The above findings have significant implications for today's HRD professionals.

Research Question 2: What Key Competencies Are Required From a HRD Professional for Effective Performance in a KBE?

In order to identify the key competencies of a modern HRD professional in a KBE, descriptive analysis was conducted, and the results are presented in Table-2. The top five competencies for HRD professionals are found to be: (a) adaptability to changes (mean=4.66), (b) ability to see "big" picture (mean=4.64), (c) communication skills (mean=4.56), (d) visioning skills (mean=4.54) and (e) knowledge of own strengths and weakness (mean=4.48).

Among the top ten competencies identified through this study, five competencies were found to be similar with Rothwell *et al.* (1999) findings, although the top competency was not found in Rothwell's list (see Table-3). Adaptability to changes was identified as the top HRD competency. It may be due to the impacts of rapid changes occurring among organizations in the KBE, which HRD professionals have to continuously deal with. In Singapore, workforce is getting increasingly diverse and more educated (STc, 2001). Corporate restructuring and downsizing is becoming a common phenomenon. Increased usage of IT and Internet in offices is also very evident today. All these could affect the training methods and its composition. These trends were not limited to Singapore only. ASTD had also identified some of these trends that would affect the nature and scope of HRD (Rothwell *et al,* 1999). Some of these competencies identified were from the interpersonal grouping. The importance of such competencies was

Table-3: *Comparative Analysis Among Current and Rothwell's (1999) Findings.*

Rank	Current Findings (KBE)	Rank	Rothwell *et al.*, (1999) findings
1	**Adaptability to changes	1	*Leadership (Leadership competencies)
2	*Ability to see "big picture" (Business competencies)	2	Analytical thinking (Analytical competencies)
3	*Communication Skills (Interpersonal Competencies)	3	*Communication (Interpersonal competencies)
4	Visioning skills (Leadership competencies)	4	Competency Identification (Analytical competencies)
5	**Knowledge of own strengths and weakness	5	*Interpersonal Relationship Building (Interpersonal competencies)
6	**Creative thinking skills	6	*Performance Gap analysis (Analytical competencies)
7	*Relationship building skills (Interpersonal competencies)	7	Intervention Selection (Analytical competencies)
8	*Leadership Skills (Leadership competencies)	8	Identification of Critical Business Skills (Business competencies)
9	Consulting skills (Interpersonal competencies)	9	Facilitation (Technical competencies)
10	*#Understanding of improvement in human performance (Analytical competencies)	10	*Ability to see "big picture" (Business competencies)

* Common competencies in current & Rothwell's findings
** Not listed in Rothwell *et al.*, (1999)
# Simplified meaning of performance gap analysis

evident in Rothwell's (1999) study. It could be because HRD professionals are primarily service providers. They need to have constant interaction with the employees to assess, understand and evaluate the training needs of the organization. This involves the building of trust and rapport through communication and relationship building.

Another key HRD competency identified by the respondents was the ability to see "big picture". To survive in today's competitive global business environment, an organization has to break away from its conventional thinking boundaries and strategies. Thus HRD professionals would need to expand their horizon and focus beyond their own organization and should identify the trends that would help in making relevant decisions for developing employee skills. They would also need the ability to analyze the differences observed between the expected and actual performance of the employee. Hence, the analytical competency, performance gap analysis, arises. In this study, these have been rephrased into understanding of improvements in human performance.

The respondents also reported a need for leadership competency (i.e. leadership and visionary skills), which is in line with the findings of other studies. This is due to the expected changes from the traditional roles of HRD professionals. Recently, an idea has emerged that HRD professionals need to be organizational leaders so as to work with senior management as advisors/partners and get them to understand the advantages of HRD. To do so, they will need to be able to project trends and visualize possible and potential future performance scenario and its implications (McLagan, 1989). They must also be able to creatively think of the ways to influence the organization (Rothwell *et al*, 1999). Hence, creative thinking skills were needed, for example using innovative methods of training.

Another competency not listed in Rothwell's study was "knowledge of own strengths and weakness" (mean=4.48). As the saying goes, "know yourself, know your enemy", the respondents felt that in order to be able to meet any challenges ahead, they would have to know themselves thoroughly. This was to ensure that their strengths could be put into good use and fully utilized to overcome the shortcomings in order to help the organization in gearing up for the challenges of KBE.

Research Question 3: Are there Significant Differences Among the Respondents' Views By Their Company Size, Business Sectors, and Types of Ownership?

Comparative analyses were conducted on the data using the ANOVA procedures to identify the significant differences existed among the responses of managers from various business sectors, sizes, and ownership structures. No significant differences were found among various business sectors. This could because the emergence of KBE affects the whole business community irrespective of the sectors they belong to. However, statistically significant difference was found in one feature: globalization, where local companies reported a higher mean than foreign companies. This may be because globalization has a greater impact on local companies than MNCs, due to the extent of their international experience. In terms of company size, significant differences were also found in two features: globalization and information technology. Large companies had higher means in both features. This could be because large companies are more likely to expand globally and invest more on information technology. Hence, the effects felt would be greater than small companies.

Comparative analyses were also conducted to identify the nature of statistical significance existing among the responses by the above mentioned categories. Significant differences were found among the respondents from various business sectors on the key HRD competencies. Each industry had its own distinct characteristics and training requirements would have to be adjusted accordingly to suit the industry. Thus HRD professionals would need to have different levels of each competency. For example, for T&D methods application, those in financial and business services (FBS) and commerce sectors reported the lowest means among the sectors. This could be because in these sectors, more emphasis on job-related knowledge was needed. For these two types of industries, law and regulations govern their operating framework, like Bank Regulation Act. Thus the employees were trained in these guidelines to ensure adherence to them. A major portion of the training would be more "fixed" in nature, leaving less room to apply different T&D methods. Hence, it also explained why the means for creative thinking skills, one of the key competencies, for these two industries were among the lowest.

Among the 11 competencies where significant differences were found, four were among the top competencies identified in this study. For adaptability to changes, ability to see "big picture" and understanding of improvement in human performance, consultancy sector reported the highest mean compared to other sectors. This may be because of their competitive nature of jobs, as they need to be flexible and be able to identify important trends, advise and assist their clients on T&D. Significant differences were also found among MNCs and local companies in two competencies. For understanding of industry, the local-owned companies' respondents reported a higher mean than those from foreign- owned companies. This difference could be due to the globalization effects brought about by KBE. Locally owned companies' respondents would have to understand the whole industry thoroughly, considering

the similar industries beyond Singapore's geographical boundaries. Whereas for the foreign-owned companies, such understanding would have already been incorporated.

As for ethics modeling, locally owned companies also reported a higher mean. This could be because the foreign owned companies operated in different countries, and the standard of ethics varied. What was considered as ethical in one country may not be so in another. Whereas, for local-owned companies especially in Singapore, business ethics is very important and of less varying standards as they were confined only to Singapore. ANOVA results showed that no significant differences existed between small and big companies and among different job experience categories of respondents.

Significant differences were found among respondents' views by their management levels in two competencies: questioning skills and performance observation skills. Senior managers reported higher importance for both competencies than those in other levels of management. This may be due to different levels of management's work nature. Questioning skills were important to senior managers because they would have to question their subordinates frequently to know the mechanics of daily operations. The need for questioning skills decreases as the level of management decrease. Senior managers also reported a higher mean for performance observation skills than other management levels. Managers need this competency to observe their subordinates' performance, assess and reward them accordingly. Senior managers have to appraise their subordinates' performance regularly. The frequency and importance of appraising task seems to be much more among senior managers than that of middle managers. By HRD experience of managers, significant differences were obtained in one competency: technological awareness and understanding. Respondents with HRD experience of over 20 years reported a higher mean compared to the others. This could be because senior people felt the need for learning and updating their technological skills much more than the younger HRD professionals. (All tables with the ANOVA results will be provided later)

Research Question 4: What Types of Training Programs are Appropriate for Developing the HRD Competencies in a KBE?

The results indicated the importance/appropriateness of the following five training programs: (a) communication skill courses (mean=4.35), (b) lateral thinking courses (mean=4.34), (c) attitude training (mean=4.33), (d) team building courses (mean=4.33) and (e) problem solving courses (mean=4.33), and management skills training (mean=4.33).

Table 4. *Training Programs for Developing HRD Competencies in a KBE*

Training Programs	N	Mean*	Std. Deviation
Communication skills courses	100	4.35	0.63
Lateral thinking courses	100	4.34	0.64
Attitude training	100	4.33	0.73
Team building courses	100	4.33	0.68
Problem solving courses	100	4.33	0.67
Management skills training	100	4.33	0.60
Knowledge sharing courses	100	4.28	0.68
OD training	100	4.24	0.65
Situational leadership training	100	4.12	0.70
Motivational training	100	4.12	0.79
IT courses	100	3.91	0.71
Product training	100	3.69	0.87

* (1= Least appropriate, ... 5= Most appropriate)

From the above findings it may be concluded that HRD professionals highly emphasize training on communication skills, creative thinking skills, problem-solving skills and management skills. Among these, communication skills and creative thinking skills were identified as key competencies that are considered to be crucial for effective performance in a KBE.

Research Question 5: What Training Delivery Methods Should be Used for Developing the HRD Competencies in a KBE?

The five most effective training delivery methods identified were: (a) OJT (mean=4.38), (b) games and simulation (mean=4.12), (c) adventure/outdoor learning (mean=3.96), (d) role play/interaction (mean=3.91) and (e) discussion and report (mean=3.85).

Table-5: *Effective Training Delivery Methods for Developing HRD Competencies*

Training delivery methods	N	Mean*	Std. Deviation
On-the-job training	100	4.38	0.71
Games and simulation	100	4.12	0.79
Adventure/outdoor learning	100	3.96	0.83
Role play/Interaction	100	3.91	0.77
Discussion and report	100	3.85	0.72
Case study/video system	100	3.73	0.81
Vestibule training	100	3.61	0.74
Web based learning	100	3.54	0.96
Audio Visual conferencing	100	3.37	0.94
Self-instructional training modules	100	3.32	0.91
Lecture/classroom training	100	3.14	0.97

*(1= Least effective, ... 5= Most effective)

The finding that OJT was considered the most effective training delivery method was not surprising as most Singapore organizations conduct their training on-the-job due to the strong encouragement from the government (Jacobs & Osman-Gani, 1999). In this context, the great success of Singapore's OJT21 program should be mentioned. Moreover, it was less costly and less time consuming. Games and simulation, adventure/outdoor learning and role play/interaction were rated highly as they were found to be very effective in developing creativity, managerial skills, communication skills and teamwork. These were found to be essential features of HRD competencies in a KBE.

Conclusions and Recommendations

As far as we know, this is the first study in Singapore that sought to identify competencies required by managers and HRD professionals for effective performance in a KBE. In other countries of America (McLagan 1989; Rothwell 1999, etc.), and Europe (Van Ginkel *et al.* 1994; Nijhof *et al.* 1997 etc.), studies have been done to identify relevant competency models.

This study identified some key features of KBE, which includes knowledge management, life-long learning, usage of intellectual asset, managing rapid changes, etc. Dealing with all these issues requires a paradigm shift from the conventional way of thinking. It is not surprising to find that adaptability to changes was ranked as the top factor in both sets of competencies (general management and HRD) in a rapidly changing economy (KBE).

Some competencies like relationship building identified in the past by McLagan (1989) are still regarded as highly important by the respondents. Therefore, regardless of the changes taking place in the new economy, some generic/core competencies are still necessary for HRD professionals. On the other hand it was also observed that some competencies that were once not regarded as core competencies, are considered to be increasingly becoming significant now such as, visioning skills and self-knowledge acquisition. Furthermore, communication skills is also of foremost importance in the competency ranking. As HRD professionals' work involves people management and skills development, being able to liaise, coordinate and communicate effectively with people will make them more successful in their job. That is why communication skills courses were considered to be the most appropriate training program by the respondents. In addition, courses focusing on team-building skills and creative thinking are highly regarded as important, and such skills are crucial for survival and growth to in today's competitive world.

In the next era, knowledge will be a source of competitive advantage for all organizations. HRD professionals will have to face the challenge of linking competencies and resources to create such advantage (Hodgetts *et al.*, 1999). Further integration of HRD with information technology will also be expected and will gradually transform into eHR. As a result, HRD professionals will need to balance between business strategy, HR mastery and technology (Ulrich, 2000)

As an exploratory study, findings of this research will help HRD scholars and professionals to better understand and reflect on the need for new competencies in a new KBE. The empirical information of this study could be useful in planning for future studies in this area. Also, the information would be useful to the practitioners in making appropriate decisions in the areas of training and employee development, recruitment and selection and in other relevant areas of professional practice. More works need to be done to uncover the underlying dimensions of the findings, such as the underlying causes for differences in perception among various industries, company size, ownership etc, which were not explored in details in this study. Future research may include more management and HRD variables, (such as career development, organization development, etc), to provide more comprehensive coverage of HRD competency study.

This study may be replicated in other countries of the region in order to identify the nature of similarities or differences with these findings, which would contribute to the development of an Asian model that might be different than the HRD competency models developed in Europe and America.

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Mastering the HRD Matrix: Generating ROI by Linking to Business Strategy

Erica D. Kalata
Mary Ellen Satterfield
Phyllis Klees
Deloitte & Touche, LLP

This innovative session will provide a vehicle for facilitating dialogue and practical application of effective tools for linking HR Strategies with Business/Organizational Strategies. The primary goal is to provide an increased understanding of and skill using practical, researched-based approaches and techniques to build organizationally aligned training and HR Strategies resulting in increased return on investment.

Keywords: Strategy, Return-on-Investment, Human Capital Theory

This paper is structured to provide a theoretical framework, followed by objectives for the session, and a session structure. The paper concludes with sections on the outputs of the session and contributions to HRD.

> *"As a primary means of sustaining an organization's competitive advantage, HRD serves a strategic role by assuring the competence of employees to meet the organization's present performance demands" (Torraco and Swanson, 1997, p. 11).*

Theoretical Framework

This session has a foundational base in micro-economic theory, specifically human capital theory. Human capital theory suggests that people possess the knowledge, skills, and abilities that provide economic value to firms (Weinberger, 1998; Youndt, Snell, Dean, and Lepak, 1996). An investment in human capital is a source of sustainable competitive advantage for firms (Thurow, 1997), particularly if that investment ensures that the pool of human capital is a resource, both difficult to replicate and difficult to substitute (Huselid, Jackson, & Schuler).

Deloitte & Touche made a significant investment in the development of their Technology and Communications (Tech.Comm) human capital to ensure that these resources have the unique knowledge and skills to support strategic initiatives and increase overall economic value. Because of this investment and the process used to develop these resources, the organization has seen many returns such as:

- increased revenue
- decreased turnover
- increased employee networking and morale
- increased recognition in the marketplace
- increased employee commitment in an arena (the Technology and Communications business sector) where this commitment is not the norm

Increased revenue growth is a strategic initiative for the firm and participants that responded to the ROI evaluation reported approximately $8.5 million in increased revenue that they felt could be directly linked to the Tech.Comm training event. Participant respondents also reported a $1.7 million increase in revenue from cross-functional services sold, which is one of the top strategic priorities of the organization. In the present economy, talent retention, employee commitment, and employee development are of utmost importance to organizations, and the Tech.Comm training and related cultural events resulted in comments such as:

- "Overall the course was demanding, BUT well worth it. One of the best conferences I have attended - the theme was excellent."
- "Outstanding! The best course I have attended from the firm in my 25 years with D&T."
- "Nothing less than brilliant; shows how all the pieces in the puzzle fit together."
- "Great conference. Congratulations! Finally a training conference that is extremely relevant to providing great client service!"

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Purpose

It is evident from the literature that few organizations have successfully learned how to effectively link their training and HR Strategies to organizational strategy in a way that produces measurable increases in human capital and return on investment. In the war for talent, CEOs and top leadership's primary concerns are not in the traditional administrative areas related to personnel. They want to know how to attract, retain, and most importantly develop human capital that will provide high gain at the individual, team, and organizational level. The onus is upon us, HRD researchers and practitioners, to begin building effective approaches to increase human capital that supports organizational strategy. HRD must understand several implications in this area:

- HRD researchers should increase their understanding of human capital theory and strategic HR contingency theory and begin performing more focused and effective research directly in the area of HR development practices across industry, size, and strategy type. They need to communicate their research findings in multiple forms and through multiple mediums for practical application.
- HRD practitioners need to provide critical input and feedback to researchers on best practices and constraints in the field. Practitioners must take the time to interact with researchers, such as in this innovative session, to uncover the realities of putting research into practice and work together to create innovative solutions for the future.
- HRD researchers and practitioners alike must partner with and learn from other disciplines such as socioeconomics, organizational behavior, and industrial psychology to gain insight and integrate knowledge.
- HRD researchers and practitioners must continue to find betters ways to partner around knowledge sharing and visioning for the future of HRD. Together, we must continue to develop sound methodologies and techniques that increase human potential and organizational effectiveness.

Objectives for *Generating ROI by Linking HR Strategies to Business Strategy* Innovation Session

This innovative session is designed with the overarching objective of:

- Facilitating a dialogue between HRD researchers and practitioners on innovative methods to effectively link HR strategies to business strategy for measurable results.
- Providing hands-on practice with several tools proven effective from defining organizational strategy and cultural attributes, to defining competencies necessary to support that strategy and culture, to building employee selection tools, lesson plans, and evaluation tools to measure return on investment.

Within those overarching objectives, the session will provide a forum where participants:

- Identify the visioned strategy and culture of their own organization.
- Determine a sampling of the needed competencies to support that visioned strategy and culture.
- Work in teams to identify appropriate behavioral-based questions to use in selecting for these competencies.
- Utilize tools for needs analysis and training development linked to the competencies.
- Explore strategic communication messages and media aligned with organization and training objectives.
- Outline effective production and performance support options.
- Develop an evaluation plan to measure the return on investment.
- Discuss effective project management and knowledge transfer approaches and tools.

Session Organizers and Facilitators

The session will be led by a team of Deloitte & Touche Human Capital Advisory Services practitioners who will compile the necessary material for the session and serve as facilitators. These facilitators have worked closely together to implement a variety of projects aimed at the alignment of HR strategies with organizational strategy for increased return on investment.

Session Content and Structure

The session is designed in six parts:

(A) Introduction
(B) Strategy and Culture Development
(C) Competency Development
(D) Selection, Training, and Communications
(E) Evaluation for ROI
(F) Project Management & Knowledge Transfer

The objectives and design of each of these sections follows:

Part A: Introduction

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees
Objectives:

- To welcome the participants with elements of the theme (e.g. outfits, online invitation, beginning video, music, etc.) which was critical to the success of the culture transformation and training
- To provide an overview of the session, and to introduce the facilitators
- To describe the theoretical framework
- To illustrate the importance of strategic alignment research, practice, and education
- To identify teams of similar sectors (e.g., academia, private, public, consulting, etc.) for increased knowledge sharing and transfer; assign team names from the characters in the Matrix movie (e.g., Trinity, Switch, Cypher, Tank, Neo, Morpheus, etc.) to demonstrate interactivity early in the session

Length: 10 minutes.
Mechanism: Presentation and demonstration.

Part B: Strategy and Culture Development

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees
Objectives:

- To discuss one model used to link training, along with other HR strategies, with business strategy to produce high ROI
- To have participants utilize a research-based tool (i.e., Lominger Cultributes™) to identify the desired culture for their own organization
- To conduct an exercise to help participants identify an important training need in their organization that would have strategic impact
- To lead participants in completing templates to creatively address the training need they have identified in a way that will link to business strategy and increase their chances for high ROI
- To discuss methods used in other organizations

Length: 30 minutes.
Mechanism: Large group hands-on practice.

Part C: Competency Development

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees

Objectives:

- To demonstrate the importance of early competency identification and development that is aligned with business strategy
- To demonstrate a method for translating cultural attributes into needed competencies
- To lead participants in an activity using a research-based tool (i.e., Lominger Career Architect™) designed to help them prioritize the competencies
- To discuss various applications of this method in others in organizations and discuss research focused on strategic competency development

Length: 15 minutes.

Mechanism: Large group hands-on practice and discussion.

Part D: Selection, Training, and Communications

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees

Objectives:

- To demonstrate the method used for Tech.Comm to create behavioral-based selection tools, training, and communications linked to the business strategy and culture
- To illustrate the web-page used to support Tech.Comm
- To review selection, training, and communications templates for use in their own organizations
- To review effective production and performance support options
- To lead participants in the beginning identification of selection questions, training components, and communications that will support the development of competencies linked to strategy
- To elicit ideas for multi-disciplinary research in this area

Length: 15 minutes.

Mechanism: Small group hands-on practice; Large group discussion.

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Part E: Evaluation for ROI

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees
Objectives:

- To review evaluation theory and the importance of moving beyond level 1, 2, and 3
- To illustrate the evaluation method and ROI results achieved from the Tech.Comm training
- To lead participants in an activity to help them design their own evaluation plan to measure ROI linked to their business strategy
- To discuss research-to-practice collaboration needs in training ROI and evaluation

Length: 10 minutes.
Mechanism: Small group hands-on practice; Large group discussion.

Part F: Project Management and Knowledge Transfer

Facilitators: Erica Kalata, Mary Ellen Satterfield, Phyllis Klees
Objectives:

- To present the project management approach used for the Tech.Comm training development
- To illustrate one effective "toolkit" designed for comprehensive knowledge transfer
- To emphasize the need for strong project management and the integration of multiple, disparate contributors
- To discuss the communication methods, timeline management, program management approach, and real ownership of component parts by individual team leads
- To summarize learning points gained throughout the innovative session

Length: 10 minutes.
Mechanism: Presentation and summaries of discussions by spokesperson of each small group.

Key Outputs

The planned outputs of this innovative session will be:

1. Understanding of the role that culture creation has in creating employee loyalty and overall learning linked to business strategy
2. Outline of positive outcomes, including ROI, that result from strategic alignment
3. Visioned strategy and culture for participants' own organization
4. Sampling of the needed competencies to support that visioned strategy and culture
5. Sampling of behavioral-based questions to use in selecting for these competencies
6. Familiarity with tools for needs analysis and training development linked to the competencies
7. Template to use for strategic communication messages and media aligned with organization and training objectives
8. Outline of effective production and performance support options
9. Draft evaluation plan to measure the return on investment
10. Outline of effective project management and knowledge transfer approaches and tools
11. Practical ideas for future, innovative research to be summarized and communicated to the AHRD membership

Is this New and Innovative?

This session is innovative in several ways. It focuses on starting from the business imperative to determine training needs. It shows how tools can be used to determine what knowledge is required to make human capital a competitive advantage. It also promotes the concept that a cultural event contributes to learning and internalization of knowledge, and it shows how a concerted plan can be put into place to measure ROI. Most importantly, it brings academics and practitioners together in one place for scholarly dialogue on not only practical methods, but also critical research needs as HRD is increasingly expected to demonstrate their strategic value in organizations.

Contribution to HRD Knowledge

Empirical research has shown some support for a contingency perspective of strategic HR practices suggesting that the linear implications of a universal, or "best practices," perspective are too simplistic (Kalata and Wentling, 1999). Research indicates that effective HR practices are actually contingent upon the business strategy of the firm rather than common to all. However, the research offers little insight on methods of *how to* effectively link HRD and business strategy for increased return on investment. This session will help practitioners and researchers understand an approach to tap into leadership, link training and business strategy, and transfer the knowledge to their own organizations for increased return on investment. It will also help uncover important research needs critical to advancing the HRD profession as a strategic partner in organizations.

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The Impact of Awareness and Action On the Implementation of a Women's Network

Laura L. Bierema
University of Georgia

This case study investigated the process and results of a corporate women's network charged with improving women's standing in the organization. The network ultimately failed. This research explores women's concerns and level of gender awareness as related to the women's network initiative.

Keywords: Women's Networks, Gender Consciousness, Human Resource Development

Exploring knowledge creation about gender in the workplace is important since women make up approximately 50 percent of the workforce and are slowly moving into positions of power. There are many pleas for research on women in work context, but few published studies. Caffarella & Olson (1993) call for more data-based studies to develop the ideas, concepts, models, and theories about women's development. They ask: "How would raising the consciousness of women about the 'glass ceiling' for women in organizations affect their life dreams and what they believe they can achieve?" (p.145). This is an important question since women have been found to exhibit low levels of gender awareness when reflecting on their career experiences in previous studies (Bierema, 1996, 1999, 2001; Caffarella, Clark and Ingram, 1997). The story of this research project illustrates the problems not only for women in corporations, but in studying women's experiences in these contexts.

The purpose of this research was to examine how gender consciousness emerges through the formation of in-company networks to promote women's status. I have privileged access to a group of executive women in a *Fortune 500* consumer products company. This group created a Women's Network (Network) with the support of the CEO that was dedicated to advancing women in the organization. I have worked as an external consultant with this group since 1998 when the Network was formed. Since that time the organization has weathered unprecedented change and uncertainty. One year into the project the long term CEO retired, a new CEO was appointed, the headquarters was moved across the country, many people were laid of as a result of the move, and the company experienced poor stock performance. The organization has been through a downsizing and the Network fizzled out.

The theoretical frames underlying this study fall into three areas: Women's career development, learning, and feminist research. Career development literature sheds some light on how adults progress through their careers, but it has been criticized for basing models on men's careers, and being insensitive to the multiple roles and responsibilities of women across the life span. The second area is a learning frame, which serves to evaluate and understand how women learn about gender in the work context with particular focus on the role of reflection, reflective practice and action, and transformative learning. Finally, this research was approached from a feminist perspective in that the goal was to create knowledge for women that might begin eroding the patriarchal nature of most organizations.

Methodology

The participants were members of the Women's Network that was made up of approximately ten of the top executive women in the organization. The number fluctuated as membership changed over the course of the study. The Network began meeting in 1998 when a focus group was held to initiate the Network. And evaluate recruitment and retention issues specific to women in the company. This group named itself the "Women's Network" and established its mission to: "Provide a focus for ongoing leadership, advocacy, and support for the development of women and minorities and to ensure workplace equality remains a vital part of the [company] corporate strategic plan" (Women's Network notes 6-17-98). The Network met again in January 1999 and refined its mission to focus on the recruitment, development, and retention of women. The last meeting of the group was in 2000.

Data were initially gathered via the focus group. After the group had been operational for over one year interviews were held. Interviews were tape recorded and transcribed verbatim when permitted by the participants. The interview was separated into two parts: 1) reflections on the network, and 2) reflections on their career experiences and learning. The topic of the Women's Network caused a great deal of trepidation and reluctance to speak about it on tape. One of the executives did not want to be tape recorded whatsoever on either topic. Two of them spoke about the network without being recorded, but allowed recording to proceed when discussing their own

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careers. Participant observation was also used as a data collection method at all meetings of the Women's Network. Data were analyzed according to the constant comparative method. This study is limited by its purposeful sample of the Women's Network. The findings are not necessarily generalizable to all women or women's groups. Additionally, I bring my experiences as a woman in corporate context, as well as my positionality as a white, middle class, heterosexual researcher to the research.

Findings

The findings have been organized according to the Concerns Based Adoption Model (Hall and Hord, 1984) and a Gender Consciousness Continuum (Brody, Fuller, Gosetti, Moscato, Nagel, Pace, and Schmuck, 2000). The findings will be presented in the frameworks of these two models and then discussed according to a model of awareness and action derived from the data analysis.

Stages of Concern

The Stages of Concern model was proposed by Hall and Hord (1984) as a tool for assessing the personal side of change. The model was developed using a concerns based approach and conceptual framework known as the Concerns-Based Adoption Model (CBAM). The model assumes that effective change implementation requires that individuals successfully address their concerns. The change or innovation in question in this study was participation in the Women's Network. The CBAM model was selected since it provided a consistent progression on which to evaluate the adoption of the network, and it speaks directly to how individuals experience innovation and change. The model clusters six concerns into three hierarchical levels of adopting change including: unrelated (awareness), task (information, personal, management), and impact (consequences, refocusing).

0. Awareness. All of the network members were obviously aware of the Women's Network. There was little awareness however, about the network among other members of the corporation, which caused significant anxiety among the members.

1. Informational. This stage of concern assumes a general awareness of the innovation and interest in learning more detail, without much concern about how the innovation will impact the individual. Initially, participants felt that increasing awareness about women's experience in the organization was important and the "right thing to do," and that it renewed the spirit of the women in the corporation. Although the Network's existence increased awareness in the organization, many observed that "awareness was clearly not enough." Another participant explained, "I've noticed-I don't know if its just the political atmosphere here, or maybe its a feeling that it's the right thing to do, and especially as a woman I'm not going to say, 'I'm opposed to helping women in my company.'" She continues, "I like to see women advance; I'd also like to see qualified men be advanced."

2. Personal. Personal concerns arise when the individual becomes uncertain about the demands of the innovation, her inadequacy to meet those demands, and her role with the innovation. Personal concerns were the most significant ones participants raised about the Women's Network. Concerns fell into three general categories including corporate structure and culture, network agenda, and differing perceived needs.

Corporate Structure and Culture. The corporate structure was highly decentralized and the organization was experiencing significant changes. The network was in an infancy stage when the drastic corporate changes began and it was difficult to recover from the distractions. There was also a high degree of suspicion of the Network in this male-dominated corporation. One participant complained, "When you hear by way of the grapevine, that there are suspicions held by certain men at the operating companies as to 'well what are these women doing?' Or, where you have some of the women on the network who have so assimilated a male way of working that they do not necessarily see the value in a women's organization. So I think given those different sorts of perspectives it was difficult to establish an agenda for change that one could have a commitment to."

Every participant in this study cited the culture as a key barrier to the Network having impact. The nature of the business is male-dominated with product lines in liquor, plumbing and recreational sport goods. One participant explained the delicacy of supporting a Network in this context, "Women, whatever their level are feeling like you know, I don't know if I exactly if I want to stand up and be counted on women's issues when my organization is primarily run by and features men or products most likely used by men."

Network Agenda. The Network claimed it lacked clarity on the purpose and mission of the group, which was intensified by a belief that management support was wanting. Although the group felt this way, the group received moral and financial support from the CEO who retired and general support from the new CEO. One participant noted, "What role does it play and how does it move things forward has never been answered. I don't really know where the support is or what it's perceived to be doing anymore." Another lamented, "It failed to have an agenda or

change that was meaningful." One participant suggested that, "The group itself could not define its function, its role, and I don't think we could get any consensus on that [because] everybody is struggling at different levels with different needs and different agendas and without kind of a guiding principle." Some sensed that the group was "going through the motions" and "kind of petered-out."

Differing Perceived Needs. The group could not agree on an agenda and was also stifled by some women who did not see the need for such a Network. This problem was illustrated by one participant, "I think that was part of the issues with the women's network is that when you have some women sitting in there who are saying, "oh we don't have a problem at all around gender issues or any diversity issues at all, and they don't have any women in a position higher than a manager, then you know, there's something wrong there." At times the Network meetings resembled strategic planning sessions rather than opportunities for women to network and support each other. Some members shared their frustrations during interviews that the group did not provide a reflective space for its members and also expressed dismay at the women who felt they had no need for the assistance of a Women's Network. During the interviews Network members opened up and engaged in a more critical analysis of the Network's focus. One explained, "I don't think we addressed enough of how the Network could have been a self-help group for its members." Another participant shared, "It scares me when I sit in a room of women and I listen to women tell me that, 'you know, I never really needed this stuff." Another noted that it was difficult to sit in a meeting, "when you look at the executive that sits there and says, 'oh we have no problems at all.'" In many ways there was an unspoken assumption that nothing would happen as a result of the network.

3. Management. Management concerns tend to focus on the processes and tasks of using the innovation and the best use of information and resources. Similar to personal concerns, management was a significant area of unease for the Women's Network. The concerns fell under leadership, purpose, and unimpressive results.

Leadership. There was a strong conviction that leadership was lacking both from upper management and within the group. It was noted that the initiative needed a corporate sponsor so its reception would move beyond "grudging compliance." Leadership was also a concern within the network. Quotes like, "I don't think most of the women that were involved in the group aren't going to be prone to being lead anyhow," or "I think leadership with the group would be the only barrier except when people are willing to do something" were common during the interviews.

Purpose. The lack of vision and mission could also be considered a management concern, since creating one is an administrative task. One participant describes her frustration: "Well, I'll be honest, I really don't understand its point. I don't know what the mission is of it anymore…I don't feel as if we have a direction that we're going in. I don't feel as if there's leadership to it."

Unimpressive Results. Finally, there was a sense that the efforts were perfunctory in that the potential of the group had not been tapped. The leader of the Network observed, "My perception on it is that it's a good first effort yet I'm disappointed because it hasn't evolved into much of anything." Generally the group felt it had taken a step in the right direction but failed to have any impact.

4. Consequence. Concerns in this category focus on the impact of the innovation on the women's immediate sphere of influence. Three concerns that emerged include those related to identity, voice and energy.

Identity. Since the inception of the women's network there have been grave concerns about how the group's existence would be perceived by the men in the organization. The women were extremely reluctant to identify with the Network. One member observes, "I know jokingly that people in the company say if we have a women's network we should have a men's network then too. Well, go ahead. Knock yourselves out." Identity issues also surfaced for Network members who feared being perceived as "needing help" or "bashing men." One participant noted, "I don't need any help, but appreciate the networking." Another mused, "I think even the women in the group sort of share that perception and no one wants to be thought of as someone who needs extra help. And, I don't think any of the women in that group need extra help." Another observed, "I just think there's an undercurrent of feeling that you don't want to be thought of getting advancement or getting something special by virtue of either your gender or your race." The women did not want to stand out based on their participation: "I don't want to be the only one beating the drum, even though I do think all those things are important." One participant explained, "There's this perception that you're trying to advance people by virtue of their gender and that's wrong because, what about men?"

Voice. The women also described concern about voicing their disagreement with policies and issues related to women. One executive reflected on being silent because the cost of speaking up was too high. Another shared, "Sometimes I've had to accept less than what I thought may have been right and I don't mean that in terms of money necessarily, although that may be part of it." She further observes that it is a necessity at times to be political which she finds difficult since she tends to be direct. To counter her style she explains, "Sometimes you just have to

bite your tongue and not say anything I guess. Look the other way when certain things are being done that you don't agree with. It's kind of scary." She was worried about being viewed as "too strong for a woman."
There was great reluctance to raise voices either individually or collectively to advocate on behalf of women. The consequences were viewed as too negative.

Energy. The women also described a lack of energy as responsible for the lackluster performance of the women's network. After fighting other battles they simply did not have the energy to push one more issue. "I still have a lot of passion about a lot of different issues...All the ism... racism, sexism, genderism, you know I don't like bullyism, I don't like any of those things, and I will fight them till the death, probably until my death." She continues to say her passion hasn't changed, "but I guess what has changed is maybe my energy level." The women cited not only the culture but also themselves as to blame for not moving the work of the Women's Network forward. One executive noted, "The people themselves, the women themselves, don't feel like they have time, don't feel like they have the background, don't feel like. . . pick something, therefore they couldn't possibly stand up and be counted on this."

5. Collaboration. This concern is preoccupied with aspects of coordination and cooperation with others regarding use of the innovation. The concerns at this level were very few, since the innovation of the women's network was not embraced to the level where it had impact beyond concerns about the individual career consequences. The participants who looked ahead to collaborating to make the Network more successful also exhibited a high level of gender awareness and willingness to take action on behalf of the network.

6. Refocusing. This concern stage explores potential universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Since the innovation had little impact in the organization, and ultimately failed, the instances of refocusing were few, but expressed by two of the participants.

Gender Consciousness Continuum

The second framework for understanding the data was to transpose it on a modification of Brody, Fuller, Gosetti, Moscato, Nagel, Pace, and Schmuck's (2000) continuum of gender consciousness and privilege. This study sought to understand how executive women develop gender awareness while experiencing the creation and maintenance of a women's network. As Brody et al. (2000) observe, "Society has a collective gender consciousness [or unconsciousness] and unidentified and unspoken assumptions about male privilege" (p. 1). Their study examined how collective consciousness permeates the experiences of both educators and students in both single sex and coed institutions.

Based on the work by Brody et al (2000), I devised a continuum of gender consciousness in organizations. "Gender consciousness refers to a person's readiness to recognize how sex differences and privilege are deeply embedded in the assumptions, expectations, practices, and manifestations of the society. Such a recognition is necessary to authentically teach students to openly examine and respond to issues of unearned privilege in order to achieve equity" (Brody et al, 2000, p. 26). A modified continuum appears in Table 1.

Position 0: Gender "Unconscious" Thoughts and Behavior. This position includes unquestioning acceptance of social assumptions and stereotypes for females and males on the basis of sex. Organizations operating at this point on the continuum intentionally or unintentionally implement different standards, policies, and behavioral consequences for females and males. Position Zero sentiments were captured in the quotes like this woman indicating she did not need extra help: "From my chair looking forward it's not as though I need the corporation to really help me much, assuming that my bosses all stay the same." Another was asked how she felt being a women affected her career. She replied, "I really don't think it has at all. I never have." Yet, she also indicated that, "I'm very used to being the only woman in the room. Definitely doesn't hurt me. And I don't really think it's helped me either." The participants generally blanched at the idea of identifying with feminists and when asked exclaimed, "Oh boy, I don't think so [consider myself a feminist], because I don't think I've been very vocal in supporting women, or women's rights. I probably haven't had to." Position Zero is characterized by strong identification with the dominant patriarchal organizational culture and a lack of recognition or awareness of its power and influence. Gender unconsciousness tends to be characterized by deference to the patriarchal culture. One member had a boss who told her she had to use her married name, and he didn't like her wearing pants. When I asked what she did in that situation she replied, "I used my married name and I stopped wearing pants."

Position 1: Sex Equity. Individuals and organizations at this position recognize that females and males are treated differently because of their sex, and they may make some corrective actions based on this recognition and advocate equitable treatment for women and men. Equal treatment is advocated, but it is not evaluated to determine whether equal treatment leads to equal outcomes. Identity is still tied to fitting in and not upsetting the men.

Position one thoughts and behaviors also include a reluctance to participate in activities that benefit women more than men. One participant noted that although the Network seemed the "right thing to do," she would "like to see women advance; I'd also like to see qualified men be advanced." The women also uncritically modified their behavior and tolerated inequitable treatment as noted by this woman, "As I've worked with higher levels of management I've had to watch my style. I've always tended to be kind of enthusiastic...animated...I've had to learn to tone that down so I'm not seen as flightly, because I'm a woman." She further explained, "I'm not sure I'm really happy about that kind of thing, but that seems to be what's needed. You do it."

Table 1. *Gender Consciousness Continuum*

Position 0: Gender "Unconscious" Thoughts and Behavior	Position 1: Sex Equity	Position 2: Gender Consciousness	Position 3: Critical Transformation
Individuals operating at this point on the continuum unquestioningly accept social assumptions and stereotypes for females and males on the basis of sex. Disparate treatment is accepted as the status quo. Such individuals believe treating people the same is treating them equitably. Men and women might be viewed as "genderless." Career success or failure is viewed as entirely up to the competence and tenacity of the individual. Women accept that they must work harder than men to get ahead. Women will also deny that being female has any affect whatsoever on their career experience. Often women attribute their career success to luck. Organizations operating at this point on the continuum intentionally or unintentionally implement different standards, policies, and behavioral consequences for females and males. Examples might include different pay scales, promotional opportunities and gendered treatment (harassment).	Individuals recognize females and males are treated differently because of their sex. Individuals may make some corrective actions based on this recognition and advocate equitable treatment for women and men. They do not question, however, whether equal treatment leads to equal outcomes. Women do not consider themselves feminists under any circumstances (although they may exhibit feminist values and behaviors). Organizations change standards and policies that differentiate on account of sex and provide deliberate compensatory opportunities to redress past inequities on account of sex.	Individuals recognize same treatment is not always equitable and become aware of gendered power relationships. Individuals recognize that the cultural meanings of being female or male are deeply embedded in everyone's thinking and behavior. Organizations question the assumptions guiding hiring and development. Critical assessment of how policies and procedures privilege certain groups is examined.	Individuals recognize the unspoken assumptions of social privilege , which is determined by valued position in the society. They see that one's sex, social class, and race enable some individuals to have privilege and access to societal rewards, while other do not have the same privilege or access to rewards. Organizations help members question unearned privilege and social dominance in the community and society; the policies move toward understanding multiple perspectives on reality and encourage students to question critically interpretations of world events. Organizations at Position 3 routinely use a critical-theory perspective as an integral part of the curriculum.

There is also a significant reluctance to identify oneself as a feminist at the Sex Equity position on the continuum although the women (in contrast to the gender unconscious) espouse feminist values even if they dislike the word. A participant notes, "I don't think by today's standards I would consider myself a feminist....I think that the world feminist today brings with it some sort of radical element." She further explains that she believes that women should have the right to choose the career they want and be free from discrimination. She finishes with the remark that if her beliefs, "make me a feminist, I am, but I don't think I would use that word to describe myself." Another offers, "I'm a very strong supporter of women. And women's advancement and, I don't know really, what is a feminist? I really don't, I mean, a radical, no. A strong supporter of women, yes, absolutely."
Another explained that although she cared deeply about things affecting women, many of the things she cared about affected both genders and thus "I do not consider myself an avid feminist, I consider myself as a humanist." Only one of the participants identified herself as a feminist. Identity issues were primarily related to how the women would be perceived by others (particularly male colleagues) in the corporation. Women were uncomfortable with being identified with the committee or being regarded as feminists.

Position 2: Gender Consciousness. This position is characterized by an awareness that the same treatment of women and men is not always equitable. There is also an awareness of gendered power relationships and that the cultural meanings of being female or male are deeply embedded in everyone's thinking and behavior. This position is also typified by questioning assumptions about the treatment of women and men. One participant explains,

> Well to be perfectly frank, which I am, [gender discrimination] is certainly an issue here. Women are not viewed in the same way and so how you approach a problem, how you approach responding to an issue.

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You're very conscious of – I'm very conscious of. But it would be different if it was a guy. It's awkward. It's real.

The women noted, however, that being "other" also can have it's advantages: "Being the first woman actually, I think, gave me some opportunities that other people didn't have."

Position 3: Critical transformation. This stage involves individuals recognizing the unspoken assumptions of social privilege, which are determined by valued positions in the society (such as whiteness and maleness). This position on the continuum involves viewing that one's sex, social class, and race enables some individuals to have privilege and access to societal rewards, while it marginalizes others causing inequitable access to privileges or rewards. Critical transformation cannot occur, however, without action on inequalities. This action might manifest in questioning unearned privilege and social dominance in the community and society and challenging the policies that prevent understanding multiple perspectives on reality. and encourage employees and leaders to question critically interpretations of world events. Organizations at Position 3 routinely use a critical-theory perspective as an integral part of the management process. There was little evidence that the individuals were at this stage along the continuum.

Discussion

An issue that continues to rear its head in my research is a pattern of women with power who tend toward "gender unconsciousness" in thought and action. These women are accomplished, intelligent and caring. They have worked often to assist others in their careers. Yet, they seem to be wearing blinders when it comes to facing the true nature of the patriarchal organizations in which they dwell. Their words, beliefs and actions suggest that they do not consider how gendered power relations impact their work environment, nor do they take action to challenge or change them. This study begins to offer explanation about the characteristics of the pattern of "unconsciousness."

The findings presented show that the executive women had many concerns about the innovation of the Women's Network. The concerns fell most significantly into the Stages of Concern model's task areas of personal and management and the impact cluster of consequence. Further, the women demonstrated a moderate progression along the gender consciousness continuum, with the majority adopting a "Sex Equity" perspective on gender dynamics and power relations. To a lesser extent the participants demonstrated gender consciousness in private conversations. This section strives to synthesize these findings with a model of how gender awareness impacts action. The model is summarized in Table 2. The table is based on the axes of awareness and action, assessing the degree of each aspect from low to high. The four quadrants will be explained.

Low Action—Low Awareness

This quadrant is characterized by gender unconsciousness about gendered power relations and little or no action to address inequity. Concerns about the Network initiative in this realm are either unrelated or task oriented with concern about information, personal and management issues. There is little critical reflection in this space, and thus little learning about gendered power relations. The learning would be similar to Argyris' (1993) single loop learning. There is no questioning about the structure and culture, and thinking and action serve to reinforce the current power structures. Functioning in this quadrant does not provide an impetus for women to gain perspective or take action. In other words, it reinforces the status quo by default. The women in this study were all aware of the initiative, but some exhibited little awareness of the plight of women in organizations. One participant explained that she once had a boss who " just didn't seem to like women for some reason." When pressed about how she handled the situation she shared, "[I] just rode it out until he was gone. Sometimes it takes a while though. . . . I think I've been pretty lucky that I've been treated fairly in general." I asked her what she meant by fair treatment and she explained, "I've never really been looked at as a woman in the room, and in fact, I forget that I am. I've never been looked at differently than anybody else." This participant relays an instance of receiving ill-treatment based on gender, yet in the same breath explains she's never been treated any "differently than anyone else." Since there is minimal awareness and action, there is no significant learning when operating in this quadrant.

High Action—Low Awareness

This perspective is characterized by some awareness of gendered power relations and high action aimed at improving circumstances for women in the organization. While contradictory on its face, this perspective is quite common among individuals and organizations espousing sex equity along the gender consciousness continuum, and functioning at task levels of concern. This thinking and behavior may manifest in generating actions in a non-

critical sense that only reinforce current power structure such as adding mentoring programs that produce protégés who accept the patriarchal culture unquestioningly. High action may also occur through the development of policies that are gender insensitive such as the unwritten rules about hours of work, which tend to discriminate against women with family responsibilities. Activities in this quadrant also tend to focus on the deficiency of others where problems of women in the organization are viewed as "something I don't have—others do." A non-feminist identification would also fall into this quadrant. Essentially, the Women's Network is a perfect example of an initiative that generated a great deal of action, but fell short in truly raising the awareness beyond sex equity. The women's identity is tied to the male dominated culture and consequently there is little critical reflection on the impact of the culture on women's experience. This group could not get beyond doing something specifically to benefit women. There was too much concern about how it would be perceived by the men. So, several meetings were held, visions were discussed, action plans devised (and abandoned), and money was spent.

Table 2

	ACTION	
AWARENESS	**High Awareness—Low Action** ✓ Private critique of power relations ✓ Sophisticated understanding of gendered power relations ✓ Fear of reprisal for advocating on women's behalf ✓ Public denial that gender matters ✓ Consciousness ✓ Reinforcement of power relations ✓ Issues of identity, voice, and energy are present ✓ Identity is linked to dominant male culture (fitting in) Stages of Concern Task 2. Personal Impact 4 Consequence	**High Action—High Awareness** **"Change Agent"** ✓ Critical activism ✓ Risk taking ✓ Critical transformation stage ✓ This is the only square that truly challenges asymmetrical power relations ✓ =Perspective shifts from self to others Stages of Concern: Impact 5, 6: Collaboration and Refocusing
AWARENESS	**Low Awareness—Low Action** ✓ Gender "unconscious" ✓ Non-critical perspective ✓ No action =no learning Stages of Concern: 0. Unrelated 1, 2, 3. Task (informational , personal, management)	**Low Awareness—High Action** ✓ Equality seeking behavior ✓ Non-critical action on gender issues (mentoring programs, coaching, staffing, gender insensitive practices and culture) ✓ Reinforcement of current power structure ✓ No critical analysis of power relatio ns ✓ Non-feminist identity ✓ Sense that "other women need help" Stages of Concern: 1, 2, 3. Task (informational , personal, management)

High Awareness—Low Action

The majority of the women in this study fell into this quadrant. They were "gender conscious" and privately offered critique of power relations and understood how they were affected by these dynamics. Their inaction was grounded in overwhelming personal and consequence concerns. The problem with thought and behavior in this quadrant is that awareness without action only serves to reinforce existing power relations. A question that remains to be answered is, do these women only share their awareness in private, safe spaces, particularly with other women or those less powerful? They did not share their awareness in group sessions for the most part rather, it was shared in the privacy of a one-on-one interview. Quotes illustrating high awareness and low action follow: "How have I used [my awareness of gendered power relations]? How have I tolerated it? I haven't used it ... that may be the problem! I don't know how have I used it? I don't even know how to answer that." She further explained that having awareness "allows you to kind of get around it...so that people are not looking at you as a woman, but you as a smart person who's trying to advance the company." Another explained, "I don't want to be known as the woman who keeps beating the drum on women's issue, and no one else is beating it." Another reflects, "I've probably had to work harder; put in more hours. Just to kind of maintain an even playing field because you know, as a woman anyway, you don't have a buddy system going...or you don't often have a mentor." Another considers "It took me longer it seemed to get to the same place regardless of the responsibility. And because it is generally, well totally, a male-dominated place, there wasn't very many places you could go to take that issue. Cause that would be a woman just complaining." Women tend to share their awareness in private spheres. Gender consciousness was not talked about in the public meetings of the group. It was only broached from the safety behind closed doors

High Action—High Awareness

The final quadrant is characterized by high action and awareness. Women in this quadrant function as "Change Agents" who publicly discuss and act toward improving the culture for women in the organization. These women's concerns are more focused on the consequences of failure of the initiative, improving collaboration, and refocusing the Network to be more effective. They functioned according to the gender conscious level on the continuum. This is the only quadrant that truly challenges asymmetrical power relations. The leader of the Network observed, "I started [it]. ...I'm trying to keep it alive, so that's my role creator, champion and sustainer." Another reflects on her role in the organization, "Whether I like it or not, I am still a role model for women....I was one of the first women in the organization ...very conscious in the fact that I was maybe setting an example for women to follow."
This level of action and awareness is accompanied by a shift away from focus on the self to a wider concern about other individuals in the organization. Perhaps this is attributable to the women's confidence in their positions. Unfortunately, the woman who was responsible for instigating the Network recently resigned from the corporation and it is doubtful that any further effort will continue on behalf of women in this corporation.

Contribution to HRD

The dominant discourse on women's networks is that they work, all women should get involved, and organizations should support them (Catalyst). Unfortunately, it is not that simple. To be effective at eroding structural inequality and creating atmospheres that are conducive to women requires that both networks and their organizations function with high awareness and action around issues of gendered power relations. The network study demonstrates that many corporate women are aware of the obstacles their gender presents to advancement, yet they are unable to raise their voices or take action addressing such problems due to fear or denial. The women in the network study were incapacitated by worries over personal and consequence concerns. Their functioning was not in the high awareness and action mode; the only quadrant of the awareness/action matrix that provides leverage toward meaningful organization change for women. Women members of networks and their organizations need to identify strategies and policies that help move toward quadrant four, or a high awareness and action state.

This study has begun to shed light on the complex process of thinking and action as related to gendered power relations in the workplace. While it still is not clear how women progress to gender consciousness and critical action on women's issues in the workplace, it is apparent that patterns of thinking and action exist. There are important identity issues to be resolved since women tend to identify more with the male culture than their femaleness. Leveraging meaningful change for women in male dominated organizations can only happen when individuals and organizations progress along the continuum of gender consciousness to the point of critical transformation of thinking and action and resolve concerns about doing so. Change will only occur when the levels of awareness and action are high and focused on the organizational level.

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The Process of Women's Gender Consciousness Development

Laura L. Bierema
University of Georgia

Women's gender consciousness development was explored and found to be impacted by three key dynamics. The first is identity development through learning "the hidden curriculum" that teaches girls and women subordination to the dominant patriarchal system of power. The second is becoming aware of gendered power relations as described above, critiquing them, and ultimately rejecting them. The third dynamic is taking connected action to change gendered power relations.

Keywords: Women's Development, Action Research, Gender Consciousness

Women make up half the human race and over half the U.S. workforce. Despite 50 years of exponential gains in workplace participation women trail men in pay, promotion, benefits and other economic rewards (Bowler, 1999; Elder and Johnson, 1999; Kim, 2000, and Knoke & Ishio, 1998). Women are slowly moving into positions of power, yet their single-digit percentage representation at the top ranks of organizations is grossly disproportionate to their sheer numbers in the workforce. Women who succeed in scaling the corporate ladder often do so by emulating men and reinforcing patriarchal systems that discriminate against women and people of color, one possible explanation for the dearth of women at the top.

Women's learning at work is challenging because it happens in a context that has been largely created, maintained, and controlled by white men. Success for many women often means accepting and even imitating male dominated organizational culture. Yet, this type of acculturation does not help eliminate systemic discrimination or asymmetrical power distribution, nor does it balance gender representation among the ranks of executives. Understanding how knowledge is created about gender in the workplace is important because it helps us understand the dynamics of gendered power relations in organizations. It yields clues as to why women have been relatively unsuccessful in breaking through the "glass ceiling." It also helps us understand how to begin eroding patriarchal systems that serve only to reinforce the status quo.

Women's learning at work must be considered in the broad social context that dictates gender roles, cultural norms, and expected behaviors. Although it is argued that women lack voice, visibility, and power, the question remains: how does their learning at work deal with these disadvantages? Hayes and Flannery (2000) charge that researchers have failed to move beyond mere description of learning, integrate feminist perspectives into their research, or consider how sexism and power relationships impact learning. Further, they observe that research lacks diversity and wide social, economic, and political analysis. They also suggest that women respond to their social contexts as learners and learn different ways of responding to oppression. They wonder, however, if any of these responses are "self-affirming and growth enhancing" (p. 51). There is evidence that many are not. A striking feature of previous studies is that some women exhibited a low level of gender awareness when reflecting on their career experiences (Bierema, 1994; Caffarella, Clark, and Ingram, 1997). Women in these studies reported experiencing gender based hardship, discrimination, and harassment. Yet, often these women did not attribute their experience to gender, even when asked directly. Learning that some of these women broke through the glass ceiling by "playing by the rules," ignoring sexual harassment, tolerating exclusion from the men's network, and accepting less qualified men being promoted over them was startling. Moreover, some of these women continued to follow a non-critical stance toward the patriarchal organization *after* achieving power and success.

Workplaces are social institutions, and thus, mirror the power structures and oppressive forces in society. Organizations are primarily male-dominated and success normally involves emulating the successful (Diekman and Eagly, 2000; Fagenson, 1990; Maniero, 1994). Hayes and Flannery (2000) suggest that like education, the workplace has hidden curricula that reproduce power structures. Evidence of this assertion is found in many studies suggesting that masculine traits help women advance at work. For instance, women at senior hierarchical levels in organizations scored significantly higher on measures of masculinity scales (Fagenson, 1990); feminine personality or physical attributes have been found more essential for success in female-dominated occupations, while masculine personality or physical attributes were thought more essential in male dominated occupations (Cejeka and Eagly, 2000); and women's access to top male-dominated roles depends on their personality, cognitive, and physical

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attributes becoming more like those of men (Diekman & Eagly, 2000). Kolb (1999) found that the sex and personality trait of femininity had no significant effect on leader emergence, but self-confidence, attitude toward leadership, prior leadership experience, and the personality trait of masculinity did. Mainiero (1994) interviewed 55 high-profile executive women about key events in their early careers that led to success. She concluded that fast tracking was dependent upon assignment to a high visibility project, demonstration of high performance, attraction of top-level support, display of entrepreneurial initiative, and accurate identification with company values.

According to these studies, career success is dictated by assuming masculine attributes, stereotyping gender roles, and following a set of "rules" for success. The result of these dynamics is the acculturation of women into male work culture, devaluation of women's gender roles, and deprivation of women's identity. Women's need or desire to buy into the "old boy" network may be explained by either suppression or unawareness of themselves as gendered beings (Bierema, 2001; Caffarella, Clark and Ingram, 1997). Women's uncritical career development not only causes them to adapt to a masculine model, but also prevents them from addressing power differentials or claiming a career on their own terms as women. There are many pleas for research on women in work context, but few published studies. Caffarella & Olson (1993) call for more data-based studies to develop the ideas, concepts, models, and theories about women's development. They ask: "How would raising the consciousness of women about the 'glass ceiling' for women in organizations affect their life dreams and what they believe they can achieve?" (p.145). This study attempts to explore the effects of women's consciousness of gendered power relations.

Theoretical Framework and Purpose of Study

The theoretical frames underlying this study fall into three areas: Women's career development, learning and feminist research. Career development literature sheds some light on how adults progress through their careers, but it has been criticized for basing models on men's careers, and being insensitive to the multiple roles and responsibilities of women across the life span. Thinking about women's career development has been dominated by male-oriented theories that inadequately illuminate women's careers. The second area is a learning frame, which serves to evaluate and understand how women learn about gender in the work context with particular focus on the role of reflection, reflective practice and action, and transformative learning in the women's work context as it relates to gender awareness. Finally, this research was undertaken from a feminist perspective with the goal of creating knowledge that is useful to women as they learn to challenge oppressive social systems. The purpose of this research was to study women's gender consciousness development through action research project with a group of eight women, the majority of who are employed as domestic violence prevention and treatment policy makers and service providers in the Midwest. The action research group functioned to reflect on our learning about gender, use new knowledge generated to take action, and return to the group to share our learning.

Data Collection and Analysis

An action research project was conducted with a group of eight women including myself. This group was purposefully selected based on their evolved awareness of gendered power relations, and their willingness to act to change discriminatory practices affecting both women and minorities. I gained access to this group through a consulting project. We collaborated for one year on a state wide training project before the research began. All participants joined the group voluntarily and were research partners throughout.

Dickens and Watkins (2000) identify involvement and improvement as the two vital objectives of action research. Action science approaches engage people in a process of internal critique of their own thought and action (Putnam, 2000). The action research design was ideal as it lends itself to both generating knowledge and producing action (Park, 2000). This group critiqued their thinking and action about gendered power relations at group meetings were used to both generate and analyze data. I served as the data recorder and initial analyzer, and the group analyzed and critiqued my preliminary findings during meetings. The meetings were held at a quiet bed and breakfast on twenty-seven acres overlooking a brook. The group met in the library and agreed that the setting contributed to creating a sense of ease and helping the group be open and vulnerable during the sessions. All sessions were tape recorded and transcribed verbatim. Data collection began in May of 2000. The group has met four times formally, one time informally, and keeps in touch between meetings.

The data were analyzed according to the constant comparative method and evaluated according to stages of gender consciousness development (Brody, Fuller, Gosetti, Moscato, Nagel, Pace, & Schmuck, 2000) and a Gender Consciousness Action and Awareness Matrix (Bierema, 2001). Member checks have been conducted both during group meetings and through electronic mail communications. Limitations include the purposive sample. Findings are not necessarily generalizable to the population at large. I was also a participant in the action research process,

however, the group was actively involved in both data collection and analysis. I also bring my lenses as a white, middle class, heterosexual female who formerly worked in corporate America to the study.

Findings

Women's gender consciousness development is impacted by three general experiences. The first is identity development through "the hidden curriculum" that teaches girls and women subordination to the dominant patriarchal system of power. Lessons learned from exposure to the "curriculum" include gender roles, a devaluing of women, silence and invisibility, submission to male power, and acceptance of role contradictions (e.g., use feminine wiles to get what you want—but don't be too feminine—while simultaneously playing by the men's rules). Girls and boys, and women and men learn and reinforce these gendered power relations throughout their lives. The rules and roles accompanying gendered power relations are so ingrained in the culture that they are practically invisible, neither questioned nor challenged by most people. These findings are discussed elsewhere and this paper will focus on the next two areas of findings which include gender awareness development and connected action.

Gender Awareness Development

This section addresses how the women in this study became aware of gendered power relations and began unlearning the hidden curriculum. Learning played an important role in helping women question the status quo, which is a key ingredient in fostering consciousness. Learning was grouped into the categories of individual and connected based on the differences in awareness generated by each. The developmental impact of individual and connected learning on gender awareness will also be discussed.

Individual Learning. Individual learning about gendered power relations included formal learning, self-directed learning, experiential learning, reflective learning, affective learning, and transformative learning. Individual learning verified an intuitive sense that the hidden curriculum was not right and helped the women reject socially dictated roles and power relations. Formal learning played an important role in dawning awareness about gendered power relations. Traditional gender roles and stereotypes were taught and reinforced through both formal and informal learning channels as detailed in the previous section. Many of the women were not encouraged to pursue higher education, and in some cases did so without familial support. All of the participants are highly educated college graduates. Several encountered progressive teachers and received exposure to feminist and women's studies in college. They were also voracious readers and cited several works as pivotal in their thinking about themselves as gendered beings.

The women also learned about gendered power relations experientially, particularly through discrimination. An attorney in the group recalls that in her first firm, "some of the partners weren't sure about working with me, they weren't sure that their wives would be happy having this young person with them...[working] until ten or eleven at night, and ordering a pizza." She also continued to receive unglamorous assignments while her male peer was getting better cases. Experiences with racism, homophobia, anti-Semitism, and sexism contributed to the women's experiences of learning about oppression. Childbirth was another pivotal learning experience that ranged from empowerment to exhaustion across this group. Several also had negative birthing experiences where they did not feel listened to by their doctors. Through their learning, the women rejected socially dictated gender roles and began to explore alternatives. They questioned the legitimacy of their "female role" and rejected the socially dictated roles. Although they individually reached a point of rejecting the status quo, acting upon this new viewpoint was generally facilitated by participation in collective learning.

Connected Knowing. Group learning was repeatedly cited as essential to raising awareness. Speaking about the action research process and the camaraderie that developed among the group one participant emphasized, "I'm thirsting for this." Another noted, "I have always learned more from others." Connected knowing was also a necessary ingredient in moving the women toward deeper awareness and was important in at least three ways. First, it provided a safe space for women to compare experiences in depth. Second, it allowed the women to name their oppression and realize that they were not alone in experiencing the damaging effects of patriarchy. Finally, it began to give women the courage to move from awareness to action. One member shares, "I really think its difficult to learn individually, because whether it is through writing or talking personally with individuals, that's how we hear other perspectives...that's how we get the validation." Although connected learning is important, the women belonged to some women's groups that were unsatisfactory to them in advancing their learning about gendered power relations.

The Developmental Impact of Learning about Gendered Power Relations

Awareness of gendered power relations developed through a transformative learning process that was a combination of individual and connected learning that challenged the "hidden curriculum's" content, values, structures, and rules. Through both individual and collective processing, gender consciousness emerged and expanded based on questioning the hidden curriculum, rejecting the status quo, reclaiming voice, and reframing identity. These four developmental shifts do not happen in isolation of each other. Rather they overlap and influence one another.

Questioning the Hidden Curriculum. Women begin questioning the hidden curriculum in various ways. Group members noticed and objected to the invisibility of women, or discovered and lamented the fact that society defined them through their husbands. Some learned that their income was neither welcome nor valued in their family systems. Yet through their learning they began questioning these dynamics. Often the questioning was prompted through the media by books such as Betty Fredian's, *The Feminine Mystique* or *Ms. Magazine*. Publications such as these were regarded as "defining moments that you can point to." One participant recalled a woman's she belonged to that questioned the status quo. It was a church group called "Women in Religion." This group read *Woman's Spirit Rising*. This member, who eventually became a Unitarian Minister, describes her learning, "It was like my jaw was just dropping open all the time about how women had been excluded from the stories in religion and theology." Later she attended a conference on feminist theology and heard a speaker who was a Catholic critiquing the Catholic Church. She recalls that someone asked her, "Well how can you stay in the Catholic Church with these viewpoints?" And she said, "Nobody ever asked the Pope how he can stay in the Catholic Church with his viewpoints." The idea that women or even herself could form their own ideas was novel to her.

Rejecting the Status Quo. In addition to questioning the way things are, gender consciousness development involves making the decision to reject the status quo regarding gendered roles. One participant moved to a new community shortly after getting married and recalls, "suddenly I didn't have a job...I'll never forget going to the grocery store and realizing that I couldn't even get a card to cash checks without putting my husband's name on it...and that was devastating to me." She decided not to accept being defined by her husband. There was anger about the programmed images of women. One woman notes that people often brush off these messages. She observes, "And you know here's the argument. It's just one ad in a magazine. Or it's just one line in an article. But when you are bombarded with those one little experiences they really add up to reinforce the status quo." As the women questioned and rejected the status quo, they began to reclaim their voices.

Reclaiming Voice. A key learning process that accompanies the rejection of the status quo is the act of reclaiming voice. Participants described not only reclaiming voice for themselves, but also helping others be heard. There was also a fear of not being heard, particularly around gender issues as noted by this member, "My fear is that no one would ask us." Another laments not having voice as "this insidious nature of how women just are silenced and how we are expect to be silenced. And we're conditioned that way over time and language is a huge part of that as I understand it and I've experienced it." She is talking about how language is gender neutral or sexist and how it renders women invisible. She has been an activist to change this invisibility.

Speaking up and being heard takes many forms for these women. Staying silent is far worse than any fear or regret they might have over speaking out since some of them know "that there are times when you can no longer be passive. There are situations when you have to actively speak to overcome or to overturn injustices." One member tells the story of reclaiming her maiden name. "Shortly after going to [a] conference I decided to change my name – I was married at the time – and I took my own birth name back and hyphenated it." This is a brave act required explanation to family, friends and co-workers.

Another member notes how difficult it is to have a voice. She laments, "We're not encouraged to care a lot about certain issues." She notes that sometimes on a professional level the resistance is an impression that "'you're just taking this gender thing too seriously' and I think that's part of the struggle...but there's [this] thing in our culture where we're not encouraged to really care about issues too much, or too seriously, if we are it's like over the top or something." As these women began to challenge gendered power relations their identity began to shift.

Reframing Identity. As women in this study questioned the hidden curriculum and decided to reject the status quo, they began to define themselves as gendered beings. They reframed their identity in a way that brought gendered power relations into the foreground. Awareness is the essence of their being, affecting their career choices, intimate relationships, parenting, and interactions with family, friends and co-workers. Identity development is the result of multiple experiences over time and is defined as how women identify themselves (i.e., as African American, Certified Public Accountant) and measure their self worth (i.e., positive or negative evaluation) (Hayes and Flannery, 2000). Gender awareness happens much the same way as pointed out by this member, "Awareness happens with multiple incidents versus one definitive moment characterized [by] daunting awareness." Another refers to her

gendered awareness as "just a way of being, that I probably incorporated into myself without even thinking about and realizing."

Awareness of gendered power relations permeates the lives of these women. Consciousness is a way of being. Many have chosen careers devoted to women's issues. A participant speaks about her decision making process, "I know for me that my career decisions, my latest career decisions were certainly based on that awareness." Another shares, "My career choice was a result of my awareness of gender issues. But in addition to choosing career to address the issues, what has happened is that as a result of the career I can also address it in other aspects of my life....So the career has resulted in my being able to even talk individually with other people about [gender] issues. And the issues come up as a result of a situation that they are going through in their personal relationships. And it's gone from my awareness, to choosing a career, to the career, to going back to that personal relationship.

This group is proud to call themselves feminists and is more concerned about working against sexism than over what people might think of them. One person captured this sentiment by quoting lyrics from a Neil Young song saying, "it doesn't mean that much to me to mean that much to you." She explains, "I love that line and I can't ever get there, but ... it sort of reminds me of what we are talking about that as long as you are comfortable with yourself, you make your own decisions, you know why. It doesn't matter what those people think unless we let it impact us." Another member considers, "I don't know if I came to activism because of a dawning gender awareness that motivated me...to like start doing activist work or and then my activism like real solidified and deepened my convictions of the feminist, or if it was the other way around." During the group sessions one participant likened her persistence in defending women's issues to a favorite quote, "And then the day came, when the risk of just staying tight in a bud was greater than the risk it took to blossom." She shares that she loves the quote because it "helps me frame that I don't want to be in this place anymore, and it is risky to leave it, but I don't want to be here anymore." She views the process of awareness as "it's like you've gotta get to the point where you don't want to be there anymore." This also describes how the women use their identity to take connected action.

From Connected Knowing To Connected Action

The women experienced important learning leading to gender consciousness through testing their questions and rejecting of the status quo with the support of other women. This type of learning is similar to Belenky, Clinchy, Goldberger, & Tarule's (1986) description of connected knowing. New insight, however does not foster social change without action. Awareness without action is futile. A consistent pattern among these women was that their awareness of gendered power relations manifested in feminist activism, on their terms. They strove to make the invisibility of women and women's oppression visible. They worked to protect other women from discrimination and pain. In fact, for this group, gender consciousness is at the heart of their being, a part of who these women are and how they define themselves. They are not without struggle, however, and work to use their awareness to achieve life balance. They also make deliberate decisions to be "consciously unconscious" at times when the personal cost or pain is too high to act on their awareness. Their activism assumes several forms, both overt and "stealth." They also use their knowledge to teach others about gendered power relations and work for change. This section describes the connected action of the women in this study by sharing stories about how they asserted themselves to make the invisible oppression of women visible, adopted a "conscious/unconscious" strategy, and demonstrated consistency between though and action.

Making the Invisible Visible. The women shared stories about speaking up and bringing attention to issues that disenfranchise women. One notes, "I think it should be that gender consciousness is the purpose of saying that 'this is what's happening to women.' It's to bring it to your attention. I think it is important to call people's attention to something." They take risks to address gendered power relations and view themselves as teachers to help others learn about oppression. One considers the judges she works with sharing, "my role is to instruct [and] most of them are male. Taking action in the name of women's oppression involves making the invisibility of women's oppression visible. Discrimination and oppression of women has become such a part of our culture we often don't see it." These women work to teach others about oppression. There was frustration at patriarchal systems that privilege its members to not "see" oppressive forces as explained by this woman, "My point is that, you have those who feel so arrogant or so privileged that they don't ... think it's necessary for them to do it [be aware]." Another notes, "we have all made it [sexism] visible within our lives, but that so many others haven't."

These women describe their willingness to confront others sexist behavior. One participant emphasizes that she takes action "When there's been a violation of a very clearly defined area." Another raised concerns with her son's first grade classroom about fairy tales with very sexist roles. She notes, "Part of what's hard about making the invisible visible, [is] you see it and then you have to decide on how you're gonna deal with it." She notes that it might be easier for a greater part of society to keep oppression invisible because it's so hard to deal with. She shares,

"all these different emotions can tire you out constantly, it's easier not to see it." These women have taken stands in their children's schools, the workplace, volunteer organizations, and churches. One member talks about her church explaining, "I think all the women at my church and the men, are in a totally different place, but they think I'm the crazy feminist, I always speak my mind...it's very, very important to me." Providing reminders and subtle challenges to gendered power relations is viewed as promoting change.

Adopting a "Conscious/Unconscious" Strategy. Most of these women are feminist activists, yet they make conscious decisions at times to adopt a "conscious-unconscious" stance as a strategy for dealing with sexism when the cost of taking action is too high personally or professionally. In essence, "you pick and choose what you are going to do, and be comfortable with that." This dynamic is explained: "You do a little bit at a time, and then you slide back, and then oh shit, to do it again, you start over again. But you can't react to all of them, or you'd be angry and you'd be fighting daily, so, I guess the best metaphor is, 'you pick your battles.'" Sometimes this conscious-unconscious behavior is simply a means of preserving energy or life balance. Another member explains, "There's probably a lot of things that I run into that I just say, it's not worth it, it's just not worth it. I can't fight everything and everybody all day, or I'll be so negatively focused that I can't get anything done." What distinguishes this behavior from gender unconscious behavior is that there is a deliberate choice made not to act, versus ignorance or denial. One member who toned down her activism when her children were small emphasizes, "It wasn't an unconsciousness, that I kind of denied or put it aside. It was a conscious decision of 'I know how society reacts to this type of behavior'...so I stepped back."

Consistency in Thought and Action. What distinguishes these women from the gender "unconscious" is not only their consciousness, but the consistency between thinking and action, or as Argyris termed it, espoused theory and theory-in-use. Typically, Argyris (1993) found many professionals to say one thing and do another. The apparent, yet unrealized inconsistency was viewed by Argyris as a flaw in reasoning and resulted in failures or unexpected outcomes. The women in this study generally did not fit Argyris' pattern when it came to gender issues. The women consistently viewed themselves as activists for women's issues and shared their beliefs. "To me it's critical that [gender consciousness's] definition is [grounded] in activism." To this member "that's part of becoming aware... activism [is] trying to go against the status quo."

Contribution to HRD

This action research project has provided insight into the process of developing gender consciousness. The primary conclusions of this study include that gender consciousness is a result of connected knowing and action, identity development is impacted by gender consciousness, and developing gender consciousness is a transformative learning process.

Connected Knowing and Action Result Dually Foster Gender Consciousness

A key contribution of this research is that is shows the result of connected knowing: connected action. Knowledge about gendered power relations is not enough and must be accompanied by actions if change is to occur. Connection was important to the sustained activism of the women in this study. Many participants noted that it was taxing to be the "lone ranger" because it was too difficult to sustain prolonged activism on behalf of women's issues. Belenky et al. (1986) concluded that connected learning is most effective when members of a group meet over long periods of time know each other well. They define it as learning that is grounded in relationship, reciprocity, and conversation. It is also a means of identifying common ground among learners. Other scholars have argued that fostering a sense of connection is very important for women's development (Giesbrecht, 1998; Gilligan, 1979; MacRae, 1995; Ruddick,1996). Caffarella & Olson (1993) note in their critical review of the literature on the psychosocial development of women that: "What surfaced as central to the developmental growth of women was the web of relationships and connectedness to others" (p.135).

Identity Development is Impacted by Gender Consciousness

Developing consciousness is difficult and does not happen in a systematic or orderly fashion. Many fields have broadly conceptualized the self in terms of multiple identities, with individuals holding perceptions of themselves such as traits and values, attributes, experiences, thoughts and action, physical appearance, demographic features, and dispositions of various sorts (Leonard, Beauvais & Scholl, 1999). Gender is socially constructed and a part of human identity development that is based on life experience. Self identity has been found to be created through participating in work, private life, community, and other social entities. Gender socialization may result in both

identity development and identity conflict. For instance, women and men may be socialized to fulfill sex role expectations that conflict with their self image, goals, or occupation. MacRae (1995) suggests that women's identity has been conceptualized in terms of formal roles in the paid work arena dominated by male experience while their informal roles, such as relationships and care giving, have been ignored and made invisible. When women try to challenge formal or informal roles, resistance is high and leveled from friends, families and co-workers. The women in this study struggled to forge an identity that contradicted the hidden curriculum of life and work and fought resistance from family, coworkers, and friends. The two African American women spoke more often of developing a strong identity from their families. Yet being a strong feminist evokes resistance and impacts identity development. The women in this research succeeded in withstanding the resistance, and as a result forged a new self-identity, higher self esteem, and ultimately gender awareness. Zane (1999) found that women began to place more importance on their identity as women as their understanding of gender issues increased. Indeed there is significant social pressure to become socialized as females who are unaware and inactive regarding addressing gendered power relations. Learning in groups of other women was crucial in fostering ongoing identity development and a movement toward feminist activism among the women in this research.

Developing Gender Consciousness is a Transformative Learning Process

Developing gender awareness is a process of transformative learning that occurs both individually and collectively. Daloz, Keen, Keen, and Parks (1996) examine the nature of transformative learning that occurs as a person develops a sense of social responsibility and outline four conditions of transformation: presence of the other, reflective discourse, a mentoring community, and opportunities for committed action." Daloz's (2000) conclusion that consciousness is impacted by recognizing one's "otherness" is relevant to this study. "Otherness" is defined as a process of constructively engaging with the political and social consequences of perceiving yourself as "other" (and usually marginalized) from the dominant culture (Daloz, 2000). I suggest that gender consciousness depends on understanding the "otherness" that accompanies being female. The women in this study were relatively secure with themselves as women before they began acting to change gendered power relations. They also came to define their otherness individually through questioning the hidden curriculum and rejecting the status quo. A group was needed, however, to further develop their awareness. Incidentally, failure to regard oneself as "other" may be one explanation for why some senior level women in management see neither gender differences, nor the need to reorganize power relations. The climb up the corporate ladder may have left them insecure in their own identity after years of striving to conform to a male image and ultimately resulted in gender unconsciousness.

Future Research

This study has begun existing the gap in the literature regarding how gender consciousness develops. Few research articles exist documenting this phenomenon. The existing research lacks a systems perspective, and has been conducted in school or political contexts. Gender consciousness development needs to be explored in a variety of contexts such as non-profit, higher education, community groups, corporations, and small business, to name a few. It would also be useful to examine factors that inhibit learning about gendered power relations. There is significant resistance when gendered power relations are challenged and new information for battling resistance would make an important contribution to restructuring gender relations. This study has also underscored the importance of connection and relationship when learning about gender. Although this study has examined the process of gender consciousness development, it would also be useful to explore factors that inhibit learning about gendered power relations in context among both women and men. There is significant resistance when gendered power relations are challenged and new information for battling resistance would make an important contribution to restructuring gender relations. This study has also underscored the importance of connection and relationship when learning about gender. Future research might explore the learning processes associated with connected action of women.

The words of Gloria Steinem, "The first problem for all of us, men and women, is not to learn, but to unlearn," aptly capture the first action women and men need to take in developing their own consciousness about gendered power relations. Perhaps then, steps toward true gender consciousness and connected action can be made.

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Gender, Power, and Office Politics

Ya-Hui (Bella) Lien
National Chung Cheng University, Chia-Yi, Taiwan

This interpretive study explores the experiences of Taiwanese female clerical workers how they deal with the office politics. The hermeneutic phenomenology was used to describe and interpret the participants' experiences. Three major themes were emerged about their powerless experiences: (a) powerlessness and frustration result from the structural barriers, (b) powerlessness and frustration result from the behavioral barriers, and (c) powerlessness and frustrations require accommodation and rationalization.

Keywords: Power, Hermeneutic Phenomenology, International HRD

Although more women have enter the global workforce than ever before, many of these women are over represented in entry-level positions and staff positions (Ammstead, 1994; England & Browne, 1992; Lowe, 1987; U. S. Department of Labour Women's Bureau, 1993). Despite the increased numbers of women holding administrative and professional positions, the vast majority of senior-level positions continue to be held by men. According to Hsieh (1993), Taiwanese female workers have played important roles in each stage of Taiwanese economic development and growth, same as most of countries; women's voices are still missing in the social science research. Nielson (1990) suggested that traditional research methods both render women invisible and remove them from the context of their lives. The hermeneutic phenomenology was used to gain a thorough understanding of the Taiwanese women's experiences in order to contribute to the body of the knowledge of the human resource development discipline and women study.

Problem Statement

Virakul (2000) indicated that ambitious and capable women have always, from time to time, met with work obstacles resulting from their incompatible relationship with powerful men for whatever reasons. In the Human Resource Development (HRD) field, women still need to have strong mind to win over the obstacles in the workplace in order to get career advancement. Although growing number of western companies, especially the American companies, have been declaring themselves "eaqual opportunities employer", Taiwanese women in workplace still underrepresented in positions of power and authority and underpaid compared to their male colleagues across employment sectors and professions (Chang, 1994; Ku, 1998; Lien, 1989). Office politics is essentially about power (Kenig, 2000). Since entry-level clerical works were mostly held by Taiwanese college-graduates and as their first job (DGBAS, 1999), sometimes, their first work experiences further influence later career choice (Ku, 1988; Moore, 1985). This study intend to understand these young college-graduates' work experiences, especially when they need deal with the gender, power, and office political issues on the daily bases.

Background of the Study

In order to have better understanding of this study, the following sections intend to describe the labor market and business background of Taiwan.

Labor Market in Taiwan. Currently, 46 percent of all Taiwanese workers are women (DGBAS, 1999). However, even though a greater number of women have entered the job market, women are still considered a minority in Taiwan's workplace. Although in recent years, both women and men have increasingly pursued jobs that have traditionally been dominated by the other sex, the job market in Taiwan is still segregated to a great extent (DGBAS, 1999; Taiwan Executive Yuan, 1995; Tsai, 1994). Despite a focus on the country's economic and structural changes, women workers are still employed mainly in clerical, service, and retail sales jobs. In addition, most management positions held by females were distributed among the lower ranks of managers (Hsiu, 1994). Criteria for most clerical jobs in Taiwan can be found in the classified advertising section of daily newspapers, which lists one employment category as being for "female only". This is contrary to classified advertisements in the US, cannot discriminate among employment candidates based on paid careers. The primary job category for college educated women in the white-collar labour market is "professional and related jobs," with 62.43 percent, which includes mostly school

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teachers and health care professionals. The second largest job category for college-educated women is "clerk," with 33.99 percent (DGBAS, 1999), (see Table 1). However, clerical positions in all industries still employ the majority of Taiwanese female workers.

Table 1. *Taiwanese White-collar Workers, by Gender, Occupation, and Educational Level* *Unit-%*

	Females				Males			
	(Sub-Total)	Less than HS	HS	College & above	(Sub-Total)	Less than HS	HS	College & above
Number of workers	2439	546	1028	865	2407	502	807	1099
Percentage	100	100	100	100	100	100	100	100
Government administrator/business manager	2.46	2.01	1.65	**3.58**	14.42	14.74	13.01	**15.38**
Professional and Related	35.30	5.68	28.11	**62.43**	46.65	14.54	39.78	**66.52**
Clerk/service worker	62.24	92.31	70.24	**33.99**	38.93	70.72	47.21	**18.10**

Source: Adapted from "Monthly Bulletin of Manpower Statistics," by DGBAS, May 1999.

Business Environment. Due to Taiwan's dense population, government policies, and economic strategies, small- and mid-sized companies are encouraged to help develop the nation economy. These small- and mid-sized companies form the foundation of Taiwan's job market. There are four typical business organizations in Taiwan: (a) family-owned businesses, which usually are managed by the owner; (b) foreigner-owned businesses, which usually adopt the overseas parent company's policies; (c) corporation with western management style, which usually have clear policies; and (d) government and public owned organizations (Wu, 1995). Many newly graduated female workers enter family-owned businesses as their first step into the workplace. Family-owned organizations are unique and dominate among Taiwanese business styles, especially with regard to small- and mid-sized businesses (Hwang, 1992). The main characteristics of family-owned businesses are their small size and tendency to employ the owner's relatives. The management style of a family-owned business has more focus on authority than does a western business. Because the family-owned business employs relatives and may lack clear work policies, further, the work atmosphere of a family-owned business may rely more on the employer owner's tastes than would a western-style company.

Theoretical Framework

Chinese Cultural Values and Gender-Role Stereotypes

According to Smith (1992), Confucian philosophy is not based on religion, it is rather based on relationships. Harmonious social institutions and collegial behaviour are important to Chinese people. Chinese society historically was authoritarian and patriarchal, traditionally women were confined to activities in a domestic setting. However, different gender have different social roles (Eagly & Mladinic, 1989) are shaped by cultural values. Specifically, social structures underlie beliefs, which presume that women are homemakers and must behave selflessly, while men are workers who must behave with self-assertiveness. To date, even with the large number of women entering the workplace, society still maintains certain expectations for female workers. The Gender Role-Expectations Theory (Higgins, Duxbury, & Lee, 1994) is based on traditional sociocultural role expectations, which prescribe that men take primary responsibility for the bread-winner role, while women assume primary responsibility for the family. This stereotype shapes social expectations for women working outside the home.

Power and Office Politics

Due to the scarce resources and differences among interest groups, power and conflict are central features of organizational life (Hathaway, 1992). Although power has been defined in many ways, one way to describe the power

is "the potential ability of a person of group to exercise control over another person or group" (Moorhead and Griffin, 1998, p.385).

Power and politics are close related. Office politics is essentially about power. Playing politics is about attaining and retaining power. Political behavior, after all, is by definition an informal attempt to protect one's self-interest, meet personal needs, and advance personal goals (Barney & Griffin, 1992; Hellriegel, Slocum, & Woodman,1995; Pfeiffer, 1981). In office, people usually use power and other resources to control over another people and obtain their preferred outcome. Women in office, due to the position they held, most of time lack of the power officially. Or women in office, due to the scarce resources, they need to use some office political behaviour to gain their preferred goals. These situation happened especially the company has unclear policy. Although office politic is an unavoidable issue, few studies explain the effect of office politics among workers in the workplace. However, "office politics" is a fact of life. Refuse to recognize this fact, and you leave yourself open to victimization (Hathaway, 1992).

Methodology

Since this interpretative study attempts to explore the office work experiences of Taiwanese young college graduates. In-depth interviews and on-site observation were served as the methods of this study. The study used hermeneutic phenomenology as the research methodology through which to understand the inherent phenomena (phenomenology)--the underutilized role of Taiwanese female clerical workers--and to interpret the lived experiences (hermeneutics)of Taiwanese female clerical workers who claimed that they are underutilized and powerless (Hultgren, 1989).

There are nineteen participants who are college-educated females with fewer than five years working experiences and doing office work. In order to get rich and purposeful information, the participants were selected by using snowball technique (Patton, 1990). They expressed their working experiences to reflect the relationship among gender, power, and office politics. Every participant accepts at least two hours in -depth interview along with on-site visit of their workplace to collect the data. Based on the verbatim transcripts, the text was analysis. According to Van Manen (1998), three approaches towards uncovering themes: (a) the holistic or sententious approach, (b) the selective or highlighting approach, and (c) the detailed or line-by-line approach. First of all, above thematic analysis approaches were used interchangeably. Second, a cross-case analysis was examined to discover the common themes.

Findings

Powerless and frustration are the major themes, reflected the participants thoughts. In order to survive on the labour market, these female clerical workers try to assimilate to the climate. Whether they take it or leave it. Three groups of themes are described below: (a) powerlessness and frustration result from structural barriers, (b) powerlessness and frustration result from behavioural barriers, and (c) powerlessness and frustrations require accommodation and rationalization.

Powerlessness and Frustration Result from Structural Barriers

The structural barriers, which lead these young college-educated Taiwanese female clerical workers to feel powerless, include (a) society treats men and women differently, (b) job restrictions exist, and (c) company policies are unclear.

Society Treats Men and Women Differently. According to Reskin and Ross (1992), employers assume that women's primary attachment to their future families limits their efforts at work. Thus, corporations would rather promote male workers than female workers. Therefor, men have more opportunities and power than women have in the workplace.

Orpha said:

> I have a friend who cannot get promoted. She has a good performance record, but just because she is a girl, she cannot get promoted. A man got promoted, even though she was his mentor, and he used to be her subordinate. The boss just told her she should be sorry because she was a girl. Being a girl was a reason for her not being promoted.

Pam said:

> I think it is really painful to be a female worker. In the same situation, if a woman wants to get

promoted, she must try harder than her male counterpart.... The current situation is that when a promotion opportunity opens, the boss will favor promoting a male employee over a female employee. In fact, if the female is to get the chance to be promoted, she must be far superior to her male counterpart. To be honest, there are still different treatments for men and women.

According to Lin (1989), wages and occupations show differences between sexes at the entry level. Her study suggested that sex discrimination in the labor market existed and cannot be rejected in Taiwan. The idea that "men deal with outside work, women deal with domestic work" is still a common concept in Taiwanese society. As a result, different treatment of men and women—discrimination--occurs both consciously and unconsciously in Taiwan.

Jane said:

> [In Taiwan], because men went to military service, they wasted two years, so employers think they should get much more salary than women [to make up for that lost time]. It doesn't matter whether they [men] have work experiences or not. When they enter our company, they get NT 2,000 dollars more than women get. The employers think that way, so what can you say? I also know that not long ago, we still had a regulation, which we called the "single law." It meant that when women got married, they should automatically leave their jobs, because they might ask for marital or maternity leave, and may no longer be young and beautiful enough for a position as a teller. In addition, women may pay more attention to their families than to work, which employers wouldn't like. Because it causes too much trouble, they prefer that women leave work after they get married. That is what we call the "single law."

Grace said:

> My boss is very narrow-minded; he was educated under Japanese rule and influenced by Japanese business, as well. Japanese thinking, which says that men are always superior to women, influenced him and we do a lot of business with Japanese corporations. They are very typical; they all think that "males, as bread winners, should take care of business and women should take care of domestic matters." As a result, women in the business world are always in secondary roles... One of the problems is the thinking of the company's leader. It really affects girls' development in the business world.

Job Restrictions Exist. Some participants reported that Taiwanese businesses are basically sales oriented. There are some restrictions for females getting into the labor market and becoming salespersons in some trade companies. In Taiwan, females are able to find clerical work easier than other work, especially if these women do not have any professional degrees. They may not easily get sales jobs in some industry or trade companies, so this type of job segregation keeps females restricted to clerical job categories. For example, females can easily be placed as sales assistants or management assistants in any industry. Yet, most of the time, there is not enough room for them to become salespersons.

Grace said:

> We have a manger that proposed that we should have two girls do sales jobs, and one of them was I. But our boss turned down this experimental proposal. In fact, our boss thought that it was inappropriate for girls to do sales jobs. He is stubborn; he doesn't want to be responsible for girls' safety if girls are sales people and go outside the city to do business. Actually, I was honoured to be mentioned as one of the girls in this proposal, even though my boss didn't approve that proposal. Anyway, sales are the foundation of a company. I mean, sales people can make money, and directly profit the company. So males as sales persons more easily get promotions than women, whousually do office work. Women may need to work seven years to become a co-leader in a department. Men may just need three or four years, and then they can be co-leaders... My point is, that women are only doing office work; they don't have opportunities to create visible profit for a company. All women can show businesses are reports, not how many products they sell. We have good filing skills, so what? The boss won't see those skills.

Rachel said:

> When you read the newspaper, you find 90 percent of the jobs you can do are secretarial jobs.

> So if I go for a secretarial job, it will be easy for me to get it. Other jobs may require some specific major or requirement. I guess a secretarial job is all I can get.

Company Policies are Unclear. Due to the low corporate level of clerical workers, they have restrictions on what they can do at work. They rarely have the power to do things they need to do; they must follow the boss' or supervisors' orders. In Taiwan, since a lot of companies are mid- or small-sized, the hierarchy in management depends on managers, and the age of managers is a factor, which should be considered. Older managers, who are usually influenced by the Japanese management style, are more negative about women and their capabilities to do business (Wilen & Wilen, 1995). In addition, this type of company may lack clear policies to regulate its own bureaucracy. As a result, the participants blamed the institutions instead of their bosses. If you do not know how to play office politics under this kind of ambiguity of company, you will experience powerless more than ever before.

Ingrid said:

> This company has a bad system; I should say, they don't have a good labor policy. I feel that the boss always thinks about himself.... I think a company cannot only follow the boss' decisions, it should be concerned about employees as well. In fact, there is nothing more that we can learn except office polics.

Jane said:

> Actually, working in a local Taiwanese company is not good for me, because a local company cares about employees' seniority more than about their performance. I mean, the employees' promotion opportunities are based on how long they work for a company; the performance is a minor criterion for promotion. In addition, some people care about some other factors, such as your title. It seems that if you have a good title, then you can speak up more. Things like that. However, in a local company, you should not only handle work tasks, but people, too. Doing things well may not guarantee that you will get good feedback.

Powerlessness and Frustration Result from Behavioral Barriers

Some feelings of powerlessness and frustration occurred because these workers faced difficulties with other people, including their bosses and co-workers, about different work expectations. Both employers and employees may have had different thoughts or attitudes about the nature of work. In my study, some themes about powerlessness were the result of bosses' personalities and their attitudes about how to treat their workers and how they perceived these young, college-educated, female workers' jobs.

The boss Won't Let Go One of the complaints related by my participants' experiences was that they didn't have power and autonomy to do their work. They needed to follow orders all the time. Moreover, they needed to ask their bosses' permission for almost every move they made. They needed to rely on their bosses to give them authority to do things; otherwise, all they did was waste time. However, neither the boss nor the department would acknowledge that fact.

Teresa said:

> I am a secretary, so first of all, I do a lot of detail and trivial work. Since the boss won't give me any leeway, my authority is really limited. And the boss asks me to do more than I can handle [because I have too little authority]. Sometimes, there is just no way to do it; that means I cannot get done what he wants, due to the limited power I have. Eventually, if the boss can give me more room to handle things, then I will do things better. Even when I discussed the situation with the boss, he still didn't get it. It just didn't help.

Rachel said:

> I couldn't learn anything at all. My boss didn't give me any authority. He held the power. I worked as a secretary, as a "small office girl." What I did was more lousy work, compared to real and meaningful work.... We were a small export trade company with just four people--two managers and two employees--and it was a family-owned business. I was a secretary and a "small office girl." I just felt unhappy. I learned nothing, and the boss didn't give me any power to do my job.... It is hard to deal with things when you have little power. The power I had was so limited; the work that I did was so little. There was just no way out.

They Exploit Labour Market Freshwomen. Although my participants felt they had the skills and talents to do their

jobs, they also felt that their bosses just took advantage of them. Their bosses did not care how educated they were; they only saw these young, college-educated workers as newcomers in the labour market. The employers thought they were new, lacked work experiences, and knew nothing about the workplace. So, the bosses used these young workers to do labour-intensive work instead of creative work. In addition, the bosses did not need to pay them as much as they paid experienced workers. The bosses even saw themselves as trainers to help these young workers get experiences. These kinds of attitudes made the young workers feel exploited and further feel frustrated.
Ellen said:

> The boss is very smart. He hired me and told me that I didn't have any experience, so he would give me only a certain amount of salary. In his mind, he thought he was using lower pay to hire a college graduate to do more work. I didn't like the way he acted, but I didn't have any work experience, so what could I say? I feel that it is unfair that they exploit new graduates. They give us a small salary because we lack work experience. I just feel that they exploit "labor market freshwomen."

They Do Not Use My Talents. Many of my participants felt that they had the talents to handle a lot of things. Yet, since clerical workers' skills are invisible, their work seemed trivial and "replaceable." These college-educated female clerical workers felt that they could not use what they had learned in college or what they knew to contribute to the workplace. They felt they had great talents, but no one cared.
Florence said:

> I felt that anyone could do this job. Some tasks may need some time to become familiar. Most of these tasks don't need a lot of talent to do them.... To tell you the truth, I didn't feel bad about that, but when people keep questioning me about why I waste my talent doing this kind of job, then I start to think that I am making little use of my talent.

Sharon said:

> Of course, I think that I am "Ta Chi Hsiu Yu" [someone with good capability but little usage]. This is no fun at all. So I keep my eyes open to look around for other opportunities.

The Boss Gives Credit To Others Without Rewarding Me. When the employees feel disrespect and lack appreciation from their bosses, a common feeling is worthlessness and frustration. They see themselves doing things for other people without benefiting themselves. According to Gutek (1988), a secretary is like an "office wife" (p. 232), a person who is not promoted for her own talents and accomplishments. Most of the time, a secretary is tied to her boss' title and promotion ladder. If a secretary helps the boss, makes the boss look good, and the boss gets promoted, then the secretary has a chance to get promoted along with the boss. Sometimes, because management did not acknowledge the secretaries' contributions to the company; only their direct supervisors and bosses knew about their contributions. If their bosses did not give them appropriate feedback, these clerical workers usually felt that nobody recognized what they did. Moreover, they felt that they were invisible and did things without any reward.
Grace said:

> It is worthless. Working for other people without profiting yourself is not really smart. Also, the boss won't appreciate you. The boss even thinks that he can run the business well without you, although I don't think he is right about that.... I think that I work for someone else without profiting myself. That is too painful and frustrating. In addition, the boss doesn't appreciate me.

Deb said:

> I feel they fool me. I feel like I work for people to whom I am not responsible. I don't know where my efforts go. I don't need to put all my efforts into it. It is wasting my time.

Powerlessness and Frustrations Require Accommodation and Rationalization

Even though these workers experienced powerlessness and frustration, they still needed work experiences for their resume. If they could not leave their jobs right away, they coped with their situations by assimilating into the culture or rationalizing to accept what was happening to them.

We find it Easier to Assimilate Into the Environment. One method these workers used to accommodate their powerlessness and frustrations was to assimilate into their organization culture. This strategy may occur either consciously or unconsciously. Regardless, in order to survive in the workplace, assimilation into the environment was

used to accommodate their frustration and powerlessness. Just as Jane said, " I better change myself to suit the environment." On the other hand, if these workers could not stand their situations, they thought about leaving their jobs.

Jane said:

> Changing yourself to suit the environment is easier than changing the environment to suit you. I better change myself to suit the environment.

Deb said:

> I think I was assimilated into our company already.... Sometimes, I felt that there was some "lazy grain" spread in the air of our workplace. Nobody really wants to fight for his or her own rights. Everybody just listens to the boss; whatever he says, we follow. I think I assimilated into the organisational culture unconsciously.

We Need to Accept Our Fate. Since secretaries' work is considered trivial and they lack control over their work, some workers experienced a feeling of " acceptance of fate." They tried to tell themselves to adjust to their current jobs, especially when they needed their current jobs for various reasons. They may have needed to accumulate work experiences, or they could not find better jobs, or they were tired of looking for suitable jobs. According to my observations and conversations with my participants, the ones who experienced powerlessness and expressed acceptance of their fates were more fatalistic, and their attitudes toward life were more passive than that of others.

Florence said:

> Even now, what I am doing is trivial work. I must tell myself to adapt to the situation I face. It seems everyone is like that. Even to a secretary in a big company, the work is as trivial as it is in a small company. The power you have is limited also. My point is, a secretary deals with trivial things and holds limited power, so we should learn to accept our fate. Ha! Ha!

We Need to Accumulate Work Experiences. As I listened to how these workers dealt with powerlessness and frustration, I found that they had one very practical problem. As newcomers to the workplace, they needed to accumulate work experiences. So, even though they faced powerlessness, they still needed to "hang in there" in order to accumulate those experiences. When they experienced powerlessness, sometimes they tried to accommodate their feelings and rationalize with their needs, such as "we need to accumulate work experiences."

Rachel said:

> What can I say? I need to accumulate work experiences. I need to stay here at least one year to accumulate work experiences.

Kandace said:

> I need to accumulate work experiences. They count how long I work for the company by the year, not by the month. That is why I need to stick with a company even if I don't like it. That really wastes my time, but I need to accumulate enough work experiences.

Conclusion and Recommendation

Feelings of powerlessness and frustration are common themes in these workers' daily lives. According to Gherardi (1994), we are "doing gender" in our everyday work lives. For female clerical workers, some tacit norms exist in the organization, and that may explain why females were treated differently. The powerlessness I saw resulted from the limited nature of their powers, the unclear policies of their companies, and the manner in which the bossestreated their employees. There was too much office politics that they needed to observe if they wanted to break through the system. Since the bosses sometimes did not know what was going on, why should these newcomers--who are young college-educated clerical workers--do things differently? However, if they were too eager to change the system, sometimes they would lose even more power and experience more frustration. Listening to and understanding my participants, I accompanied them as they talked about the powerlessness what they faced and their confusion about the next stop in their lives.

This study has implications for both research and practice in human resource development. Listening to their voice can accumulate the knowledge of the female workers' work experiences. To better understand their real life experiences can help us to reflect the concept of the human resource concept especially on female workers. To reveal their experiences can also help both Taiwanese practice and academics have insightful thoughts in female workers in Taiwan. In addition, this study provides opportunities to international human resource development field for

"vicarious experience" (Patton, 2001) in order to contribute to the social construction of knowledge. Further, this study serves a foundation on which to build theory in Taiwan, which is interest to Taiwanese HRD practitioners, researchers, and educators, as well as international HRD researchers.

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Challenges and Strategies of Developing Human Resources in the Surge of Globalization: A Case of the People's Republic of China

De Zhang
Tsinghua University

Baiyin Yang
University of Minnesota

Yichi Zhang
Peking University

This paper analyzes challenges and strategies of human resource development (HRD) in China. As a developing county, China faces unique challenges at the age of globalization. Many HRD issues and problems come from economic reform, development, and globalization. The paper also identifies several effective HRD strategies that have been or will be implemented.

Keywords: Globalization, Developing Country, P. R. China

After nearly 15 years of negotiations, the People's Republic of China (PRC) became a member of the World Trade Organization (WTO) on December 11, 2001. Most reactions to this news tend to be positive because many believe it is an inevitable event during the age of globalization. The WTO means different things for different people around different sections of the world. China's leaders believe a WTO membership will lead to dramatic improvements in the health of its already growing economy and the standard of living for its people. For many multinational companies, China's formal membership in WTO implies already promising investment opportunities. WTO entry means that Chinese tariffs will be cut on average from 24% to 9% by 2005, while most of the restrictions the state presently places on foreign companies will be lifted. House (2000) comments that whether a company is already in China or a newcomer, any enterprise with multinational aspirations is now looking in that direction.

Unaffected by the global economic slowdown, China is among the fastest growing economies in the world. Since economy reform launched in 1978, China's economy has expanded at the annual growth rate around eight percent, and the country's per capita income doubled every ten years, faster than almost any country in recent history. At the same time, China's economy has been increasingly become an important force of globalization. According to WTO's statistics, China was the seventh leading exporter and the eighth largest importer of merchandise trade in 2000. China has been consistently one of the hottest investment spots in the world with annual foreign direct investment around US$40 billion (Ahlstrom, Bruton, & Chan, 2001).

As China has been successfully transforming its rigid social and economic systems and increasingly involved in the global economy, there tends to be a need to understand how the country has been managing and developing its human resources in the surge of globalization. It is both a theoretical and practical issue to identify challenges and strategies of developing human resources in developed and developing countries as well. Marquardt and Engel (1993) contend that human resource development (HRD) professionals are facing conflicting forces in the age of globalization: global vision and thinking versus local and culturally specific action and productivity. They maintain that HRD has been used as the lever for strategic success in the global economy.

Problem Statement

Globalization is not a new concept. There are increasing discussions about the effects of globalization on various aspects including human resource practice. Majority of the literature tends to examine the impacts of globalization from perspective of developed countries. Little is known or documented about the unique issues and challenges faced by developing countries. Given the current success of China's economic reform and open-door policy, it will be a valuable work to analyze the impacts of globalization with China as a case. Atiyyah (1992) comments that most conceptual and empirical studies in the field of management education and training are conducted in developed countries. HRD methods and techniques were also developed in organization based in these countries. Few studies have been conducted to investigate how these concepts and techniques are applicable to developing countries. Little has been documented about unique issues and challenges faced by developing countries in the age of globalization.

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No systematic effort has been made to identify effective HRD strategies used by China in its modernization process started from its economic reform in early 1980s. The major purpose of this paper is to explore how globalization affects human resource development in China. It also identifies strategies that can be used for a developing country facing huge challenges of globalization in utilizing and developing its human resources.

This study has two implications. First, the modernization experience of China may be beneficial to other developing countries. Though China is the world's most populous country with own characteristics and each country has its unique developmental issues and challenges, most developing countries do share some common issues and similar histories such as Western imperial influences and lack of adequate financial and technological support. For example, one of the consistent human resource issues faced by many developing countries is brain drain (Payenne, 1985). Every year, thousands of well-trained professionals left their home countries in search of a life in developed countries. An investigation of Chinese HRD strategies and particularly its effective measures in attracting oversea professionals might offer practical implications of HRD strategies and policy making for other countries.

The second implication of this study is for HRD scholars and practitioners in developed countries. For scholars, the findings of this study will offer a global perspective, particularly issues and problems unique to developing countries. As an academic discipline, HRD field needs to include a broad range of theoretical perspectives and effective methods to address various issues in the face of globalization. For HRD practitioners who plan to work in the developing countries, it is important to be aware of some practical issues. Furthermore, it is also important for human resource professionals to recognize emerging strategies and policies of the country in which they work.

Research Questions

This study was designed to examine the impacts of globalization on a developing country's HRD practice with R. P. China as an example. The following research questions guided the study:

1. What are major challenges and issues faced by the P. R. China in the surge of globalization?
2. What are practical HRD strategies that have been used in the P. R. China as a developing country?
3. What are some viable HRD strategies that China can adopt in competing in the global economy?
4. What are some of the unique characteristics of HRD that have been demonstrated in a transitional economy from centrally planned to free market system?

Theoretical Framework

Most HRD theories and models are developed at the individual and the organizational levels, few of them were designed at the national level. We found that Baruch's (1995) framework of human resource management relating to the globalization was helpful in guiding our discussion. Baruch (1995) posits that the main aspect in global human resource management (HRM) is the need to move people between countries. Such movements happen in two categories: one is within multinational companies and the other is in migration on global scale. The proposed framework is called push/pull model because there are two kinds of driving forces: (1) one force that pushes human resources from their original countries; and (2) the other force that pulls human resources to the desired destination. This model consists of two groups of variables: three participants and three social factors. The participants in the model are individuals, organizations, and countries. The social factors are the economy, the law/rights and the culture. These social factors and three participants, together with their values, beliefs and needs, are involved in the process of global human resource, affecting and being affected by the participants' decision on global business operation. The outcomes of such decision can be identified at individual, organizational, and country levels. In sum, Baruch's framework is a comprehensive model as it identifies three major participants and social factors that determine the process of global human resources. Although this framework was presented as an HRM, we think that it is suitable for the current study for the following two reasons. First, at present there tends to be no distinction between HRD and HRM in the P. R. China (McLean and McLean, 2001). Second, a theoretical framework with a global perspective of HRD has not yet been developed in the literature.

In order to identify major issues and challenges of globalization for a developing country as well as to outline strategies for growth, we also borrowed theories of developmental economy to guide the analysis. We take an emerging view that HRD is a strategic intervention to provide competitive advantages for organizations, industries, and nation states (Grieves, 2000).

Method

Two research methods were used to identify major challenges of globalization imposed on developing countries in general and China in particular, and to discover viable strategies of developing human resources at the national

level. The first method is the content analysis from the literature. A thorough literature search was conducted via current databases in business and education. The following key words were used either singularly or in combination during the search: "globalization", "human resource development", "developing country", and "P. R. China". Only those titles revealed in the search with relevant contents to the topic were analyzed and categorized.

The second method was a participants-observer approach. Three authors of this paper formed a research panel and shared their personal observations and experiences in developing the current article. The senior author of this paper is a professor of management in a Chinese university and has more than twenty years of experience in research and consulting in China. The second author is a native Chinese and currently teaching HRD in an American university, and frequently travels across the Pacific. The third author is a professor of management in a Chinese university and currently a visiting professor in an American university. All of the three authors are familiar with the HRD literatures in Chinese and English and have first hand experienced the impacts of economic reform and globalization. Three authors used modern technologies such as e-mail, fax, long-distance calls to communicate their ideas and form the current article.

The analysis of the data involved the content summary of literature and three researchers' personal reflection on the literature. All of three researchers participated in discussion and debate to generate emerging themes. Conclusions were drawn and speculations were made from these themes.

Issues and Challenges

The major challenges and opportunities have been emerging since China begun its economic reform in 1978. The economic reform and open-door policy has resulted in tremendous challenges due to three transitions: (1) from a centrally-planned to a market-oriented economy (2) from a rural and agricultural to an urban and industrialized country, and (3) from a closely self-contained society to an active participant in the global economy.

Challenges of Reform: Developing Market-Oriented Human Resources

The first major challenge for China to developing human resources stems from incompatible but co-existing economic systems. The traditional system is a centrally-planned one and established on the concept that the entire economy system is a large enterprise. While the traditional system is gradually vanishing, a free-market economic system has not yet been fully established. Under the traditional economic system, education, employment, property, production, supply of materials and markets were all arranged by government's plan. Enterprises were subordinated to government administration and had little power in allocating resources and conduct long-term plans. There were two major types of employment: one was permanent employment (so-called "iron rice bowl", i.e., secure lifelong employment) and the other was temporary. The overwhelming majority of the labor forces were permanent employees. With the reform of economic system, enterprises are given more autonomy to adjust market changes. Firms have gained the decision power in many human resource activities such as recruiting, training, and firing.

Even though the economic reform has been launched for more twenty years, traditional system has not been totally replaced and perhaps some of the elements will continue to exist. The dual systems have put challenges for Chinese managers. For instance, most new employees are normally hired on contract with newly created social security while the remaining permanent employees are still on the old system with special privilege (Zhu, 1995). A considerable portion of employees in state-owned enterprises (SOEs) has kept the mentality of traditional economy system by relying on the government or state agency assigning their jobs rather than actively participating in the labor market. Many enterprises, particularly those of state owned ones, are struggling in the new market economy and tend to neglect the importance of human resource development. A non-random survey of 100 firms revealed that only 5% of them increased their investment on training and development (Zhang, 1999).

China faces a trade-off between the full employment (the condition that the old system strived for) and the modernization (the system that was newly introduced for) (Warner, 1996). On one hand, modernization implies an increased efficiency and the utilization of fewer employees. On the other hand, China has an increasing workforce pool because of the huge population. It is estimated that China's labor market is going to be added 11 million workforces every year during the next five years (Chen, 2000). Consequently China has to maintain a considerable growth rate in order to create considerable jobs that can absorb new workforces.

Another issue of great concern is the poor performance of the SOEs. A large number of former SEO workers are laid off from their jobs. A considerable number of workers are still employed but have no work to do ("Xia Gang") with only portion of their basic wages. But these people have little experience in a competitive market environment and often exhibit poor work habits. While majority of them have broken their old "iron rice bowls" and still maintain the mentality of "being arranged by the government", an increasing number of them have learned new

skills for employable jobs or begun small business. One of the major challenges is to educate those workforces who have been accustomed to planned economy to be market-oriented. Bruton, Ahlstrom and Chan (2000) investigated human resource related problems for foreign private firms in China and found various issues ranging from selection, training to appraisal and reward. It was found that Chinese workforces are not ready to function in a market environment. Employees are unaccustomed to do beyond the job descriptions and they tend to be averse of risks.

Gu (1997) observed a dilemma for many SOEs. She commented that the following phenomena are unique for SOEs in a transitional environment: those who should be hired cannot get in (because of many restrictions), those who should be retained are leaving (for better places such as foreign firms or joint-ventures), and those who should be fired are staying (on the consideration of social stability or mandated by government). She recommended that SOEs should establish market-oriented compensation system to retain talents. Zhang (1999) points out that current training practice in SOEs do not meet the needs of adapting to the market changes. A National Committee of Economy and Trade survey reveals that 50-60% of loosing-money enterprises can be attributed to the lack of professional managers. What the majority of enterprises need most are those managers who understand the market economy and are capable of leading the firms to compete in the market system.

Challenges of Development: Developing Skillful Human Resources

The second major challenge is to maintain a balance of social stability and adequate economic growth in the most populous country. China has a population of 1.3 billion. There are three major types of workforces in China: (1) 150-160 million employees in city; (2) 450 million workers in the rural area, and (3) about 100 million senior citizens with the age of 60 and above (Chang, 1997). Chang argues that China's population is such a huge workforce that they can be a social burden rather than resource before they can be adequately allocated and utilized. The large population can restrain social and economic development because of limited nature resources. On the other hand, human resources can be converted into tremendous fortunes if they are effectively developed.

China faces an incompatibility between the large quantity and the low quality of human resources. The average years of formal education is eight (8) years, closing to the level of those lowest income countries (Chen, 2000). When the new China was established, 80% of the population were illiterate. Right now, 92% of adults complete the elementary education, 73% the secondary education (nine-year) (Minister of Education, 1999a). However, educational opportunities are very limited due to the huge population and the limited resources. There were about 4% of young Chinese that could get into college or university for higher education during the past few years (Ministry of Education, 1999b). In 1999, college freshman recruitment doubled with 2.8 million students, resulting 49% of admission rate and representing 10.5% of the total population in the age group (Li, 2000).

Since the reform, the government's roles have changed and the labor market has been gradually established. The Labor Bureaus at various levels have changed their role of assigning workers to firms to introducing (or recommending). Different kinds of employment service agencies are introduced. While most people in urban areas can access many employment and skill development services, people in rural areas have few chances to be served. Zhu (1995) points out that the under-served floating population is an important problem. Each year millions of workers are drifting from the countryside to the cities looking for all kinds of job. It has been noticed that unemployment and a floating population might cause problem of social instability. Chang (1997) estimates that there are over 150 million of surplus workers in the countryside.

One major challenge that China faces in developing its human resources is the unbalance between natural resources and human resources across the regions. Ninety percent of the people are living in the east side while 94% of the country's natural resources are located in the west (Chang, 1997). Different regions are in the different developmental stages and there exist a tremendous gap among the regions. While the east part of the country is concentrated on industrial firms with growing high-tech, the west region is relatively less developed.

Challenges of Globalization: Developing Competitive Human Resources

One of the major challenges that many developing countries face is that they have to compete the talent with developed countries. The United States is the country that obtains the most world talent. The employment-based immigrant in the USA ranged from 58,192 to 147,012 between 1990 and 1998, significantly higher than the figures in 80s (US Immigration and Naturalization Service, 2001). In 1998, INS admitted a total of 77,517 employment-based immigrants, and of which developing economies in Asia constituted largest suppliers (India, 8,694; China, 7,598; Korea, 4,030; and Taiwan, 2,366). Since the open-door policy was implemented in 1978, about 300,000 Chinese students went to Western countries for study only about 96,000 of them come back (Ministry of Education, 1999b). There is an increasing number of graduate students who went abroad. In 1998 there were 5.6% of the graduates with master degree or above went abroad, 1999's figure was 7.74, and in 2000 that the figure reached

8.86%. Like many developing countries, China is facing the issue of brain-drain when it integrates with the global economy. Many Chinese students seek permanent residency in their host countries after having finished advanced degrees.

The globalization process has changed the arena for competing global human resources. Many multinational companies begin to establish their research institutes in China in order to utilize local talents (e.g., Intel, Microsoft, Motorola etc.). Chinese enterprises are facing touch competition with those well-established firms from the developed countries. Even many China-based foreign-invested enterprises (FIEs), normally offering much better compensation packages than the SOEs, also face the challenges of loosing their brightest young manager to better avenues such as going to top MBA programs in the US (Melvin, 2000). In Chinese newspapers, it has been reported that the overall turnover rate in Beijing ranges from 12% to 30%. For those multinational companies including IBM, Motorola, the turnover rate is around 20%. An increasing number of high education institutions in the developed countries also take the advantage of globalization in order to take certain share of educational and training market in China (Chen, 2000). Some scholars point out that China will face a "zero distance competition" in the global human resource market after it enters into the WTO (Wu, 2001).

Experienced managers and professionals are in extreme shortage. Ahlstrom, Bruton and Chan (2001) report that foreign firms operating in China are facing a labor market with shortage of skilled individuals and increasing job mobility. Bjorkman and Lu (1999) conducted a study in 65 Chinese-Western joint ventures to investigate how these firms manage local managers and professionals. They conclude that the major challenge comes from the recruitment, development, motivation and retention of competent and high performing Chinese professionals and managers. It is revealed that a variety of western human resources management practices have been implemented in China. However, few Western companies make a total transfer of policies and practices from the foreign company's home country operations to the joint-venture firms.

As China moves to enter WTO, not all of Chinese managers are well prepared to lead their enterprises to enter into the global market (Anonymous, 2001). China has closed its door to the Western world so many years. The globalization brought managers with many issues such different cultures, languages, different social and political systems, and working values. Managers with international experiences and those who can communicate well in the global area are in real shortage. Yan and McLean (1997) noticed that Chinese had little cross-cultural education and tend to judge global issues on their own standards. Before the new China was established in 1949, the country suffered from famines, civil unrest, military defeats, and foreign occupation for almost a century. Most Chinese perceive to have been victimized by Western imperialism. It was until very recent that China launched economic reform and open-door policy, and consequently the country begun to regain its superpower position in the world. Chinese managers and enterprises thus face a tremendous cultural barrier when they integrate the business with global marketplace because of social, cultural and historical factors.

Although Western-style management education has been introduced since early 1980s, there is a shortage of qualified managers. An effort to build up qualified managers was established through formal educational programs for business administration started in 1991. However, the development of management education tends to be slow and cannot meet the needs of growing market demands. Right now, only 56 universities have been authorized to award MBA degree. The whole country has awarded 7,142 MBAs by the summer of 2000, comparing to the figure of over 80,000 annually in the USA (Management in the 21st Century, 2001). Warner (1992) observed that the university management schools lack distinctive approach. Management education in China appears to have a less coherent strategy than that of developed countries. There is a critical shortage of trained managers and management educators in all of the Chinese business schools.

Strategies of Developing Human Resources in Face of Globalization

China has adopted a national strategy to revitalize the country based on science and education. Consensus seems to be established that human resource development is one of the vital factors promoting economic development and societal progress (Chen, 2000). There is a growing consensus among Chinese leaders, scholars and business executives that we are in the stage of globalization and the only competitive advantage that China has is its human resources. China has to be integrated into the global economic activity. If Chinese enterprises fail to integrate an international perspective, their ability to compete successfully in the global marketplace will continue to be encumbered. We have identified the following strategies of developing human resource in the face of globalization that have been implemented or should be used in China.

First of all, the government should spend great efforts in establishing adequate human resource policies and improving the current system in realizing its long-term objectives. When the market is gradually established, the governmental interventions into the enterprises should be kept in minimum. The main role for the governmental

agencies should be leading the economic growth and human resource development. For example, current laws and policies on education and human resources should be enhanced. During the past two year, private funded education is expanding rapidly. It is reported that there are over 45,000 non-governmental schools and 37 are higher education institutions (Chen, 2000). There are serious problems related to these private funded schools such as high tuition fees and low quality of teaching staff. Instead of direct intervention of the private institutions, government should rely more on the leverage of policy to guide the development of education and training market. It was reported that a new law is now under consideration by the legislature with regard to the private funded education institutions.

Other laws are also needed such as the funding for schools ranging from kindergartens to higher education institutions. The current funding sources tend to be ad hoc and rely on the senior leaders' commitment. The current primary minister committed an annual increase of 1% of the total expenditure of the central government on education since he took the position but it is not clear how long this increase will last and what percentage of the GDP on education is adequate. Laws regarding the financial responsibilities by central and local governments need to be established. The proportion of education expenditure out of GDP has been raised from 2.41% in 1995 to 2.79% in 1999 (Chen, 2000), but it is still considerable low comparing to 5% in all lower and middle income countries.

Second, there is a need to promote national wide efforts in lifelong learning and human resource development. Even though the term of human resource has been introduced for several years, a considerable number of enterprises fail to recognize the importance of lifelong learning and HRD. The generally used terms are "personnel management" (Ren Shi Guan Li) or "labor and personnel management" (Lao Dong Ren Shi Guan Li). The terminology of human resource has not been widely accepted and used for many enterprises, particularly those of state-owned ones. Warner (1997) notices that the notion of personnel management implies control and conformity with a stress on the value of work in the Chinese context. The notion of personnel management carries beliefs and philosophies of management in the traditional centrally planned economy. On the other hand, Western notion of human resource management and development tend to be linked to organizational effectiveness. Benham (1999) maintains that the difference between personnel administration and human resource management is more than semantics. The new concept calls for human resource department to be a strategic partner in transforming HR functions from a low-level expense center to a more visible and responsible investment center. He suggests that globalization is the key dimension of this transformation in incorporating the perspectives, customers, work values and laws of other countries into effective HR policies.

Third, efforts need to be made to improve the current education and social systems and to enhance the market of human resources. For example, a social security system has been gradually established and there are many areas need to be improved. Although the enrollment in formal higher education institutions has dramatically increased, educational opportunities are quite limited due to the large population. Government is still the dominant provider for all levels of education. Encouragement should be given to various social and private agencies in setting up different kinds of educational entities. All enterprises should be given certain tax incentives for their investments on training and development. Moreover, vigorous efforts are needed to standardize and legalize the human resource markets, particularly talent market. Those government sponsored educational institutions need to change traditional administration model and actively participate in the market. Competition needs to be introduced in education and training market to raise the quality.

Adequate HRD strategies need to be developed in accordance with other reform efforts and subsystems. For example, the current compensation policy in the SOEs does not match the HRD effort. Many talents quit their positions in the SOEs for more attractive opportunities once they receive some training and skill improvement. Consequently, some enterprises become training centers of other firms, especially their rivals. HRD strategies need to be consistent with other policies in order to develop the best and keep favorable talents.

Government sector must play an example role in developing human resources. In fact, local governments have set a benchmark for the training investment for firms. For instance, Beijing municipal government requires that 3.5% of the payroll should invest in employees' training activities each year.

Fourth, building an effective management education and training system, so it becomes a leading force in developing national human resources. The shortage of qualified and skilled management talent remains a major problem for many developing countries and China is no exception. The current direction and trends of reform and open-door practice make it very reasonable to expect a consistently increasing demand for training managers and formal management education (Warner, 1992). Formal programs such as MBA and EMBA have been developed in a speedy way during recent years to offer management education for upper- and middle-level executives. With the increase of international business, more and more multinational corporations and domestic companies as well are asking their executives to obtain MBAs. This type of formal management education can assist Chinese managers in understanding the global economy, developing new businesses, and preparing for increased competition in the face of globalization. University of Minnesota's Carlson School of Management has recently announced to launch an

executive MBA in China with Lingnan College of Zhongshan University (Hanson, 2001). It is the first MBA degree program offered by an American institute.

Because management education is relatively a new concept in China and the literature of management and there is also a lack of organizational research in China, management education should include theories and experiences from the developed countries with the consideration of Chinese contexts. Care should be taken in simply borrowing or "Westernization." Bu and Mitchell (1992) presented a heuristic framework to help Western educators and consultants compare and contrast management in China and the West. They called for attention to particular national characteristics of China and substantial adjustment of both the contents and methods of management training used in the West. For example, Western organizational theories tend to neglect the role of the government. Such perspective has limited its relevance in a hierarchical and vertically-structured country. Moreover, Western management theories assign a much lower priority to the welfare of organizational members and society than the Eastern philosophy. The authors also list other factors that need to be taken into account including the impact of the traditional Chinese pedagogy and the different cognitive styles between the West and the East. It is concluded that Western management methods should be presented as no more than one possible approach to problems. Carlson School's approach to localize the MBA program is to have each course delivered in English by one faculty member from the Carlson School and one Chinese faculty member from the partner college.

Conclusions

As a developing country, China faces unique challenges at the age of globalization. We have analyzed issues and problems that result from economic reform, development, and globalization. Unlike those developed countries that have major interest in globalizing their products and services, China has to deal with issues from theses sources simultaneously. Since the reform was launched in 1978, China has made a great effort to integrate its economy with global marketplace. The main challenge is to convert its huge population from a burden with the less educated status to fully developed human resources. The economy success in China during the past twenty years has proved that some strategies and practice are effective and viable for developing countries. As the country being increasingly integrated into global economy, China needs to pay more attention to its human resource strategies. We have identified several areas that are crucial for competing in the global market including: 1) improving human resource policies and structures, 2) promoting lifelong learning amo ng all citizens, 3) developing human resource market, and 4) building effective management education and training system.

Contribution to New Knowledge of HRD

The above analysis about the impacts of globalization on HRD in a developing country provides a unique perspective in the field. McLean and McLean (2001) contend that HRD definition and practice vary across different countries. They conclude that HRD definition is influenced by a country's value system and many other contextual variables. This paper starts to identify some important contextual variables that shape a developing country's HRD strategy and thus will tribute to the HRD knowledge base.

The China is among the most successful countries that have experienced or been experiencing transition from a centrally planned to a free market economy. China has set an excellent example for many developing countries in terms of economic growth. There is certainly a need for analyzing China's experiences, which consequently will to offer invaluable lessons and illuminations for those countries with similar social and cultural contexts. China's strategy of human resources development might be considered for adoption in other countries.

This paper contributes to new knowledge of human resource development by focusing on major challenges and common issues in a developing country. The paper identifies a number of unique issues and approaches that might be valuable for interested scholars to conduct further study. The Chinese approaches to HRD also might be valuable for international firms to adapt their human resource policies and practice in China. Many believe that human resource area is a key contributing factor for the difficulties faced by foreign companies operating in China (Weldon & Vanhonacker, 1999; Wong et al., 1999). This paper suggests that foreign firms that are interested in operating in China need to understand many contextual variables that are unique in a transitional economy. As Bruton et al. (2000) have noticed, "Western human resource management techniques are useful in China, they need considerable adjustment for the local environment" (p. 11). This paper is a first step toward mapping out the major elements of human resource environment in China at a macro-level.

The findings of this study also provide valuable information for human resource professionals working for multinationals companies that have business in China. Many multinational companies have shifted their human resource practice from expatriate-heavy to local experts and talents (McComb, 1999), an increasing challenge comes from the strategies to develop and keep local managers with more socially and culturally relevant programs. Most

multinationals hire senior managers from the Asian-Pacific regions, usually from Hong Kong, Taiwan, or Singapore, with western managerial experiences as the pioneers in setting up their business in the P. R. China. Gradually, more and more local managers are getting into the mid to high-level positions. McComb (1999) predicts that the entry and middle-management levels of most foreign firms in China will consist entirely of local staff by 2009. There might be one or two Western expatriates working on a short-term base. Nevertheless, pushing too hard on localization sometimes causes problems. Melvin (2000) reports that many joint-ventures fail due to the local control of HR functions. Heenan and Reynolds (1975) analyzed several significant driving forces for localization including integration of key business decisions, intense competition for talent and need for managerial conduit. They observed that one of the key success factors for local human resource office is to maintain regional integrity and balance. Consequently, information about local issues and policies will provide foreign HR professionals better understandings about the host country. By outlining the uniqueness of HR characteristics in China, this paper suggests that future studies are needed to investigate effective techniques for maintain regional integrity and balance between foreign firms and local culture.

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Succession Management in China and America: A Theoretical Comparison and Implications for Developing Global Human Resources

Baiyin Yang
University of Minnesota

Feng Lu
Peking University

This paper compares and contrasts succession management in China and America in the context of globalization. It is found that Chinese enterprises have different approaches to succession from the American counterparts. The paper then traces social and cultural influences on the succession management. It is concluded that even though succession management is a crucial HRD function, the process of knowledge transfer during the succession of senior management has been neglected in the literature. The paper also offers several propositions for future empirically-based study.

Keywords: Global Human Resources, Succession Management, P. R. China

Succession management, or sometimes is called succession planning, is one of the major functions of human resource planning. It is also considered as one of the important career development practices in human resource development (DeSimone & Harris, 1998). Succession management is a major activity for management development. DeSimone and Harris contend that the succession planning is usually done for senior management positions. Senior managers are required to identify employees who should be developed to replace them in this process.

Liebman, Bruer and Maki (1996) differentiate the concept of succession management from succession planning. They maintain that succession management is a way to move succession planning to better serve organizations in a rapidly changing environment. Proper succession management should include the identification of the goal of the process and the creation of a cadre of candidates who have the competencies needed to work in a senior management team. It is posited that senior management needs more than simply-to-identify individuals to replace them. More important part of the succession management is the development side. Senior management needs to identify developmental opportunities, to create challenging assignments that are central to business, to build a team/network orientation, and to mentor and serve as a role model for those who are being developed.

Problem Statement

Given the increasingly impacts of globalization on human resource activities, a better understanding of succession management in different countries would be helpful. Bartlett and Ghoshal (1998) observe that the success of globalization depends much on the capacity of local human resources to respond to individual national markets. Based on a survey research conducted for nine multinational companies, they concluded that human capital investment is the key to success. The headquarters-based management of the multinational companies could provide only basic technology and management systems. Investment and working capital can be procured either at home or abroad, but a large number of employees and managers have to be recruited, trained, developed and motivated in each of subsidiary nations to meet national market requirements. The benefits of building a business in the Chinese market are enormous. Over the past few years, a number of multinationals have made investments in the hundreds of millions of dollars in China. There are many success stories of investing the world's most populous country. For example, a recent issue of *Far Eastern Economic Review* reported that America-based photo specialist Eastman Kodak held 63% of China's roll-film market, up from single digits a decade ago (Gilley, 2001). It is, thus, not a surprise to see the movement of "localization" in many multinational companies (McComb, 1999). Most multinationals hired Hong Kong or Taiwan-born Chinese with western managerial experiences as the pioneers in setting up their business in the mainland China. Gradually, more and more local managers are getting into the mid to high-level positions. One major reason for the localization comes from the assumption that local managers should have better understanding about culture and other context related aspects. Studies have shown that higher rates of localization lead to higher profits (McComb, 1999). Another reason is the regulatory environment. As multinational

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companies have introduced new products to China, officials' expectations concerning product quality have been raised. Having people based in China makes it easier to demonstrate to the local officials that the company's products meet specifications and standards (Walfish, 2001).

While many multinational companies have shifted their human resource practice from expatriate-heavy to local experts and talents, an increasing challenge comes from the strategies to develop and keep local managers with more socially and culturally relevant programs. Literature in global human resource development seems to lack of discussion on succession management in the context of cross-country business. Slemer (1995) argues that organizations have not traditionally paid much attention to international staffing issues in general and expatriate executive succession in particular. There has been little academic research on expatriate top management succession in foreign operations. Little is known about the uniqueness of traditional Chinese way of succession management. It is one of the theoretical interests for the HRD field to examine the social and cultural differences in succession management between Western and Eastern countries. Purpose of this paper is to compare and contrast succession management theory and practice in China and America. The paper also seeks to draw implications for human resource development by revealing social and cultural influences on succession management.

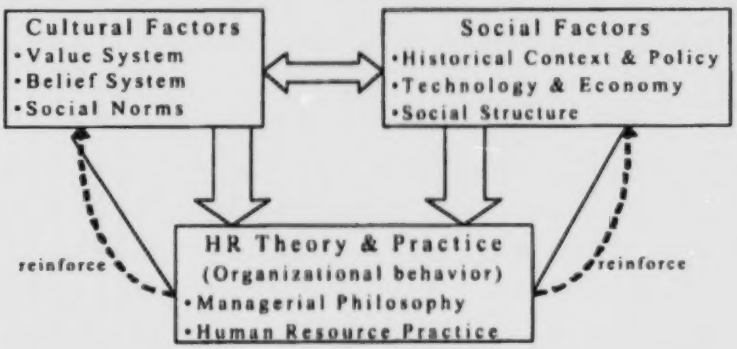
The following research questions were imposed to guide the current study:

1. What are the major characteristics of succession management in America and China respectively?
2. Are theories and practices of succession management in China different from that in the United States?
4. What are the social and cultural factors that influence succession management in different cultural contexts?
5. What are the roles of human resource development in succession management?

Theoretical Framework

The theoretical framework that guided this study was based on a model of cross-cultural study of organization as presented in Figure 1 (Yang & Zhang, 2001). This framework posits that human resource theory and practice is part of organization theory and practice. It suggests that cultural and social variables are in the dynamic relationship and they have direct impacts on human resource theory and practice. On one hand, HR theory and practice is part of broadly defined organizational behavior. Cultural orientations and social variables determine organizational behaviors in general and human resource practice in particular. On the other hand, organizational behavior has a reinforcement function that perpetuates its contexts such as cultural and social structures.

Figure 1. A Theoretical Framework of Cross-Cultural Study of Organizational Behavior



The above theoretical framework has been used to compare Western and Chinese human resource theory and practice (Yang & Zhang, 2001). It was argued that organizational behaviors are largely determined by social and cultural factors.

Method

The method used in this study was a conceptual analysis based on a review of related cross-cultural research and human resource literature both in English and Chinese.

It is the purpose of this paper to compare succession management theory and practice in American and Chinese

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contexts. Through the means of literature review, analysis and synthesis of related succession theories and concepts are presented in four parts. The first part discusses succession theory and practice in the United States. The second part highlights characteristics of succession management in China. The third part presents major differences in succession management between the two countries and identifies social and cultural influences. Finally, the fourth part offers some conclusions and possible implications of the insights gained from this paper for HRD research and practice.

Findings

Succession Management in the United States

Literature on succession management in the USA tends to center around several issues. First, there is a frequent debate about the preferable source of top management successions (external vs. internal). Proponents of internal successions emphasize the importance of continuity (Carlson, 1961; Chung, Lubatkin, Rogers, & Owers, 1987). It is assumed that insiders' greater knowledge of the firm and their established network will facilitate a smooth transition and stability. It is also believed that internal successions promote loyalty. Low to mid level managers tend to be loyal and commit to the company because of the opportunities of upward mobility. External successions have been prescribed as a remedy for firm difficulties (Helmich & Brown, 1972; Datta & Guthrie, 1994). Studies suggest that organizations that are performing poorly or wish to change strategic direction are more likely to select executive successors from outside the organization (Guthrie & Datta, 1992; Helmich & Brown, 1972; Schwartz & Menon, 1985; Virany & Tushman, 1986).

Ocasio (1999) analyzed the competing risks of insider versus outsider CEO succession in U.S. industrial corporations and suggested that boards rely on both past precedents and formal internal labor markets for executive succession and the selection of insiders versus outsiders as CEOs. Lauterbach, Vu and Weisberg (1999) examined 165 top management successions in the US firms and revealed that external successions are more likely in small firms, in poorly performed firms, and in firms that offer several top positions.

The second heavily studied area is the relation between succession and firm's financial performance. LaSalle, Jones and Jain (1993) demonstrate that executive succession is related to both firm success and the likelihood of accounting changes. Mahajan and Lummer (1993) examine the impact of various types of changes in senior corporate management on shareholder value. Evidence has been revealed that instability resulting from executive succession adversely affects organizational performance. The market has demonstrated a clear preference for a change in composition of the previous management team over its further entrenchment. Studies have shown that external succession tends to have positive and significant effects on investors' expectations (Lubatkin, Chung, Rogers, & Owers, 1989).

The third area of research interest in the literature of succession management is the successor's specialization and experience. Because inertial pressures make it difficult for organizations to adapt their strategies and structures in response to environmental changes, organizations may attempt to overcome these inertial tendencies is by selecting executive successors with different career specializations than their predecessors. White, Smith and Barnett (1997) argue that different specialization may enable the executive successors to better cope with changing environmental contingencies. A study conducted by these researchers suggests that organizations often chose successors with different career specializations than their predecessors, and that previous corporate strategy was a relatively poor predictor of successors' specializations.

The fourth research area tends to focus on the outcomes of senior management succession. Denis, Langley and Pineault (2000) propose a framework of succession outcome for senior management based on socialization and role theory. They argue that the integration of new leader and the organization may lead to four possible types of integration outcomes: assimilation, transformation, accommodation and parallelism. Studies have been conducted to examine the effects of succession on a wide range of outcomes, including growth (Helmich, 1974), financial performance (Beatty & Zajac, 1987; Lauterbach et al., 1999; Reinganum, 1985; Virany, Tushman & Romanelli, 1992), organizational mortality (Carroll, 1984; Haveman, 1993; Singh, House & Tucker, 1986), structural changes and strategy-making (Miller, 1993).

The fifth approach to the studies on succession management is to examine the social and political contexts that affect the succession process. Drazin and Rao (1999) investigated factors that influence the succession among strategic business units (SBU) managers of open-ended mutual funds. The results showed that the main effects of tenure, portion of revenues controlled, managerial exits and entries, and leverage on succession. Mediating effects were found for tenure, portion of revenues controlled, market share, leverage, and managerial exits, but not for managerial entries. Kakabadse and Kakabadse (2001) identified five critical considerations for executive succession:

the need to respect context, effectively managing the dynamics of top teams, being realistic about the transition experience, and hiring search consultants who challenge and establishing a cadre platform.

Succession Management in China

Succession management has become a major issue that many Chinese enterprises have to face nowadays (Chen, 2000). There are two major types of enterprises: state-owned enterprises and private-owned enterprises. For the state-owned enterprises, succession management is conducted by responsible government agencies and party office. For the private-owned enterprises, succession management tends to be ad hoc. After 20 years' opening and reform, the elites of first generation in many of Chinese enterprises basically fulfilled the historical task either based on their age or on their talents. Facing an increasingly competitive world, they must seek out the successors who can carry on and run the painstakingly built-up business of them successfully. It is an extremely urgent yet difficult issue with distinctive Chinese feature.

Even though there is an increasing demand for theory to guide managerial practice, study of organizational behavior and leadership is in its infant stage in China (Lu, 1999). In comparison with the Western leadership theory, China's leadership theory differs greatly from the form to the content, especially in its nature (Peng, 1987; Wang, 1992). Studies on succession management are also in the initial stage. One of the main reasons for the stagnation of China's enterprise leadership theory is that in Chinese traditional ideology, the word "leader" has something more to do with politics. The following analysis attempts to identify research interests and major issues of succession management in the Chinese enterprises.

The first research field is related to the government's role-playing. The selections for the leaders of large and medium state-owned enterprises are normally carried out by the local government (Chen, 2000), normally without a professional organization to arrange for the selection of the successors. For example, in 1996, Shanghai government began to administrate enterprise leaders based on different industrial categories and different firm scales, to lay down job specifications for the management to compete the post, to invent diversified ways for running the post, and to build up management talents market. The government agencies are also responsible for the arrangements of the training and evaluation of the management. Candidates for senior management are normally sent to party school ("Dang Xiao" in Chinese) to get adequate training. The leaders of the state-owned enterprises are said to be another kind of administrative officials rather than entrepreneurs (Qin, 2001).

In addition, government behavior usually carries the will of the high-level officials and the top officials normally make the final decision for succession selection. Subjectivity does no good for the handing over of the enterprises (Chinese Industry and Commercial Times, 2001). The former CEO of Sichuan Changhong Electronic Company, the largest TV manufacturer in China, Ni Runfeng, has been transferred to another job because of his incapability to accomplish the task. His successor, the new CEO, is forced to leave the office after taking up the post for less than eight months. Because all of the decision-making are done by the government, the profit of the company has been negatively influenced. In such situation, political influence and consideration of social harmony have been over weighed the organizational financial performance.

There are several issues related the current succession management practice. One of the key problems in China's succession management lies in the lack of system and policy guarantee. Therefore, in the succession management of senior management, how to precisely position the function of the government has become a very important research topic.

The second issue extended from the first one is what the criteria for selecting a CEO and other senior managers are. In the state-owned enterprises, the government does the job of selecting. Therefore, "from the viewpoint of China and the Party's long-term interests, the successful selection of the successors turns to be the major as well as the most difficult and urgent issue in the organization work" (Chen , 2000). The traditional selection criterion is a combination of virtue and competency while the former one is always given heavier weights. After the economic reform was launched, Deng Xiaoping outlined four major criterion for the selection and promotion of senior managers: "revolutionary, young, knowledgeable and professional." Among the above criterion, "revolutionary" holds in the first priority because "state-owned enterprise leaders are like the bridge and bond between the Party and government and the enterprise staff, linking them together like the middle part of a chain." (Economy Daily, 2000). The "professional" is the last to be considered, which is commonly known as "having both ability and political integrity". In the determination of the successor, the "political integrity" is normally put into the first place.

The third issue is about the source of the successors. The leaders in the state-owned enterprises are normally selected by the local government, which is basically endowed with strong regional feature. They are either selected from within the management team of the enterprises or from the local area. The best candidate or most qualified manager might be excluded for the consideration. Therefore, the government is like a large company while the

enterprises seem to be the departments of the company without adequate communication because of the lack of market for senior managers. Li (2001) points out that "the concept of the family has been and still is the behavior core of Chinese people handed down from the profound and richest culture soil . . . Familism or Pan-familism tendency is extremely similar in China's all sorts of organizations and units and exists extensively". The influence from culture has greatly determined the selection of the succession management. The selection of the successors from the inside of the enterprises has become the main source, but such practice has been questioned by some enterprises due to the lack of innovation (Yang, 2000). Therefore, the merits and shortcomings of selecting the successors from the inside or from the outside of the enterprises have not been fully examined in the Chinese enterprises. Little is clear about the determining elements that influence the succession.

The fourth issue is the particular phenomenon of "59-years phenomena" in Chinese enterprises. It means that in the year before retirement (Chinese enterprise leaders are mandated to retire at the age of 60), an increasing number of CEOs take advantage of their power to seek personal benefits. "Some managers can not gain the reward by what they contribute while in the post and they own almost nothing after their retirement"(Qu & Zhao, 2000). Therefore, the big gap in their income before and after the retirement pushes lots of people into the road of committing crime. Studies are needed to identify effective factors that establish adequate management incentive system to guarantee the successful handing over of the power.

Social and Cultural Influences on Succession Management

The above brief synthesis of the literature suggests considerable variations of succession management theories and practices between America and China. Such variations seem to be resulted from social and cultural differences. In the following section we will identify the social and cultural factors that determine the succession process in American and Chinese contexts. We will also summarize the findings by proposing a set of propositions for the future study.

First of all, in selecting candidates for senior management American enterprises tend to place heavy emphasis on previous performance and personal competence while their Chinese counterparts tend to emphasize virtue and faithfulness. The cultural influence on succession management is evident through the above analysis. Chinese traditional method of managerial selection has placed emphasis on virtue and morality ("De") above adequate competency ("Neng") and excellent performance ("Ji") (Warner, 1996; Yang & Zhang, 2001). Consequently, we suggest the following two propositions:

Proposition one: Candidates' virtue and faithfulness receive higher weights than technical competency and previous performance in the process of senior management succession in Chinese enterprises.

Proposition two: Candidates' technical competency and previous performance are placed with higher weights than virtue and faithfulness in the process of senior management succession in American enterprises.

Secondly, the social influences on the senior management succession are evident. In America, free-market oriented enterprise system has been established for hundreds of years. Accordingly, there are a body of literature on succession management and an increase in the bumber of empirical studies on this topic. Government plays minimum roles in economy and daily business of the enterprises. American enterprises enjoy considerably greater flexibility than their counterparts in China in decisions to expand capital plant, to lay off surplus workers, and to develop new products. Americans enjoy making their own personal decisions with minimum interference from the society and government. On the other hand, Chinese enterprises receive much greater influences from government and local politics. Such influences are placed not only for the state-owned enterprises but also for the private-owned enterprises. Consequently, we propose the third and fourth propositions:

Proposition three: Chinese enterprises receive greater influences on their senior management succession from government agencies and local politics than their American counterparts.

Proposition four: In the Chinese enterprises, successors with greater social and political connections and those with experiences in higher level of government agencies or broader social connections are more likely to perform better than those who are from inside and those who have fewer connections.

Thirdly, human resource development has played different roles on succession management between American and Chinese enterprises. Formal management development experiences and specialty in the enterprise's business have been considered as major factors in succession process in the American enterprises. On the other hand, management development is relatively a new concept in China. Traditionally, Chinese government mandates candidates for senior management to be educated in party school and to learn Marxist and Maoist principles (and some of such management education methods are still practicing). Management skills are supposed to gain through various ways of individual comprehension such on-the-job training, hands-on experience, and executive assistant experience. During the past several years, however, formal management development has gained increasing attention in China. Senior managers in large enterprises are more likely to access newly developed management education.

Proposition five: Small and private enterprises in China are more likely to have internal successors, particular from who have strong family and social connections, than larger enterprises and SOEs.

Proposition six: Large enterprises in China are more likely to have external successors, particularly those who have formal management education, than the smaller enterprises. And the external successors in the large Chinese enterprises are more likely to initiate changes in organizational structure and business strategy.

Conclusions and Implications

This paper compares the characteristics of succession management of America and China. The content analysis of the relevant literature revealed that there is a substantial body of literature on the topic of succession management. A number of empirical studies have been conducted to examine factors that are related to the succession process. On the other hand, Chinese literature on succession tends to concern about the lack of systematic study on succession management.

The content analysis suggests that Chinese enterprises tend to have different approaches to succession from their American counterparts. Factors of candidate's virtue, morality, social and political connections tend to be the major determinants for successors in Chinese enterprises. American enterprises tend to place higher weights on previous performance, specialty and strategic growth in selecting the candidates. There is no mentioning at all about candidates' virtue or morality in English literature. Such difference can be traced to different cultural backgrounds. Research interests on the succession management between America and China are also different. In a well-developed free-market, financial performance (pre- and post-succession) appears to be the major interest for American enterprises and scholars. Chinese enterprises and scholars, however, are interested in how to establish valid succession management system. Because of the social and economic transformation, the succession management in Chinese enterprises tends to be ad hoc. Government agencies begin to lose their control power but are still able to maintain a considerable control.

There is little explicit discussion on the role of human resource development for succession management in the literature. Chinese enterprises tend to emphasize on the value of individual virtue and faithfulness and thus has established the party school system to educate senior executives. American enterprises value formal management development activities and individual specialty. Studies are needed to identify the impacts of management development on the succession process. Management development or related senior executive development programs are one of the major HRD activities. Surprisingly, no empirical study that examines the relationship between management development and senior management succession has been found. HRD professionals, particularly those who work in management development, certainly need to understand whether their programs have impacts on senior management succession. Or put in a simply research question: does greater learning in management development activity lead to better post-succession performance?

Succession is a process of transferring knowledge between two senior executives within the corporate world. Little is known on how adequate knowledge is transferred during this process. There is a need to investigate the knowledge transfer process during the succession. HRD professionals need to understand how their programs can facilitate succession management.

This paper contributes to the literature of human resource development by identifying characteristics and issues of succession management in America and China. First, this paper has a number of theoretical implications offering several propositions for future research. Furthermore, cross-cultural comparisons are value-added activities in the age of globalization. HRD scholars need to better understand the impacts of national culture and contexts on organizational behavior. Even though the process of globalization is speeding up in an unprecedented way, our cross-cultural understanding is limited. The recently terrorist attacks on the World Trade Center in New York city and the Pentagon demonstrate a tragedy partially attributed to misunderstanding. This paper also has implications for HRD practice by offering different perspectives and revealing different practice of senior management succession. As more and more multinational companies are entering into Chinese market and localizing their management, HRD professionals working for these firms need to better understand contextual variables. It is also more important to understand the historical contexts of the human resource practice in China and its dynamic development because the country is moving from a centrally-planned economy to a free-market system. For Chinese HRD scholars and practitioners, this paper offers an update on the research topics and common practice in the succession management and thus they can borrow some of those proved to be valid and effective practices.

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Islamic Perspectives on Globalization and Implications for HRD

Musa S. Rabba
Saudi Aramco

Gary N. McLean
University of Minnesota

Globalization has been generally controversial. This paper explains globalization from the perspective of Islam, which was intended to be a global religion. Some Moslem scholars are generally supportive of the process, while some authors are generally negative. Based on the Islamic work ethic and the reality of Islam's growth among diverse ethnic populations and into many countries of the world, the role of HRD is explored, recognizing that the movement toward globalization is inevitable.

Keywords: Globalization, Islam, Theory

The protests in Seattle (Protesters launch..., 1999) and Friedman's (2000) best-seller, *The Lexus and the Olive Tree*, popularized the debate about globalization. McLean (2001) recently argued, from a human resource development (HRD) perspective, that the movement to globalism is inevitable. Many people, however, including Moslems, are suspicious about this phenomenon and view it as a threat to their beliefs, traditions, culture, and even identity. Given the size of the Moslem religion and its rapid growth (Major religions..., 2001), it is important for the field of HRD to understand globalization from Moslem perspectives.

Statement of the Problem

In this paper we explore the meaning of globalization, with a particular emphasis on the global nature of Islam, emphasizing both historic and present-day perspectives. This includes a discussion of how Moslems view globalization and why some of them oppose it. Then, Islamic work-related values and ethics are discussed and implications for HRD, including OD, are presented. Given that much of HRD is offered within organizations that are moving toward globalization, such a question is critical for the field of HRD in understanding the context in which it operates.

What is Globalization?

While globalization emerged as a popular concept in the late 1980s, Friedman (2000) argued that it is a much older issue, perhaps as old as the invention of the wheel or sailboat that enabled movement across borders to do business, to conquer others, or to spread ethics and religion. Thus, Alexander the Great, the Romans, Moslems, and many others at some point all established some form of globalization.

According to Friedman (2000), the invention of the steamship, telephone and telegraph, and the completion of railroad lines across countries in the mid-1800s to the late 1920s, caused the world to shrink from large to medium, while recent technologies, such as satellites, microchips, fiber optics, and the internet, have caused the world to shrink from medium to small. Schuh (1999) claimed that "globalization is rooted in three significant technological revolutions: ...transportation...communication...and...information technology" (p. 5).

Globalization seems to be a recent term. The etymology of the word shows that the earliest recorded use of the word, "globalize," meaning "to make global" or "to make worldwide in scope or application," was in 1944 (Mish, 1991, p. 521), probably during the International Trade Organization set up. While normally associated with doing business, it has to do with economic, political, cultural, educational, social, and behavioral aspects of human life. In its broader sense, it refers to the expansion of global linkages, the organization of social life on a global scale, and the growth of a global consciousness, perhaps, ultimately, to the consolidation of world society.

The following definitions represent current influential views and demonstrate how controversial the issue is.

1. "[T]he inexorable integration of markets, nation-states, and technologies to a degree never witnessed before--in a way that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before . . . the spread of free-market capitalism to virtually every country in the world" (Friedman, 2000, pp. 7-8).

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2. "A social process in which the constraints of geography on social and cultural arrangements recede and in which people become increasingly aware that they are receding" (Waters, 1995, p. 3).

3. "The historical transformation constituted by the sum of particular forms and instances of . . . .[m]aking or being made global (i) by the active dissemination of practices, values, technology and other human products throughout the globe (ii) when global practices and so on exercise an increasing influence over people's lives (iii) when the globe serves as a focus for, or a premise in shaping, human activities" (Albrow, 1996, p. 88).

4. "Globalization of the economy is a new kind of corporate colonialism visited upon poor countries and the poor in rich countries" (Shiva, 2000).

While the economy is the dominant issue, there are other factors that make the impact of globalization much broader politically, socially, and culturally. Ideas, customs, and cultural movements all follow closely after the exchange of goods across boundaries. International trade has been the vehicle by which many religions, for example, have spread, including Islam and Buddhism to East and Southeast Asia along the Silk Road (Gonzales, undated).

Some Arab/Islamic writers, such as Amahzoon (2000), Odeh (2000), and Balqazeez (1998), have argued that this process might be termed "Americanization" or "McDonaldization." Others, like Amin (1999), Aruri (1999), and Hanafi (1998), have considered globalization to be an ongoing effort of the U.S. to dominate the world and achieve a global hegemony, organizing the world's economic, political, and military dimensions and promoting capitalism as the sole economic system.

Islam: A Global Religion

Islam is one of the monotheistic faiths, along with Judaism and Christianity. Although usually associated with the Arabs of the Middle East, only about 20% of Moslems are in fact Arabs (The World Factbook, 2001). According to Adherents.com (2001), Islam is the world's second largest religion, with nearly 1/5th of the world's population (1.3 billion) Moslem.

Islam from its beginning was considered a universal religion, valid for all times and all places. Even before his conquest of Makkah (Mecca), Muhammad approached all of the potentates in Arabia, inviting them to adopt Islam. The early Moslems branched out like a bush fire. Upon Muhammad's death, his successors enthusiastically started a continuous process of globalizing the world, spreading the new faith among people of various ethnic backgrounds. In the early days of Islam, merchandise and interaction with Moslem traders was the main factor for the spread of the new theology.

Although revealed in Arabic, the Quran explicitly portrays the global nature of Islam since it is addressed to all human beings regardless of their color, race, language, ethnic background, or culture. The following verses from the *Holy Quran* clearly support this argument:

1. "We sent thee not, but as a Mercy for all creatures" (The Prophets: 21:107).
2. "Verily this is no less than a Message to (all) the Worlds" (The Overthrowing: 81:27).
3. "We have not sent thee but as a universal (Messenger) to men, giving them glad tidings, and warning them (against sin), but most men understand not" (Saba: 34:28).

The sayings of the Prophet Mohammad (Hadeeth) support his international message: "Every Prophet used to be sent to his nation only, but I have been sent to all mankind" (Saheeh Al Bukhari: *Volume 1, Book 7, Number 331).*

The weakness of the once great Moslem state encouraged other nations to invade, leading, for example, to the Crusades in 1095 and subsequently during the next few centuries. Further reductions in Moslem influence occurred with the 1258 invasion of Baghdad by the Mongols. The Turks, who had already adopted Islam, established the Ottoman Empire. It reached its peak in size and splendor under the sultan, Suleiman the Magnificent, who ruled vast areas in Asia, Africa, and Europe from 1520 to 1566. However, encouraged by the weakness of the Ottoman Empire, Europeans started the preliminary development of globalization by colonizing most of the Islamic world during the 19th century. Thus, it was Christianity's turn for global dominance. England controlled world trade, and English colonies were found all over the world. Many Arabs and Moslems underwent a westernization process that transformed their individual behaviors, arts, curricula, media, economy, law, clothing, food, and habits.

Arab/Islamic countries have followed two different paths: some countries, such as Egypt, Syria, and Iraq, chose to embrace protective economic practices, while others, including the rich oil countries, Jordan, and Lebanon, opted to be involved more widely in the western business world. However, during the three decades that followed, globalization has flooded almost all Arab/Islamic nations. Many Arab states, including Egypt, Bahrain, Kuwait, Mauritania, Morocco, Qatar, Tunisia, the United Arab Emirates, and Jordan, have signed the GATT agreement. The world's political leadership and transnational corporations celebrated the recent passage of the Uruguay Round of GATT (General Agreement on Tariffs and Trade), with its associated WTO (World Trade Organization). "The new rising tide will lift all boats" has become the dominant economic-political homily of our time (Mander, 1996).

Globalization in the Eyes of Moslems

Most published Moslem scholars identified who have addressed globalization lean towards opposition. Yet, Moslems in general can be categorized into opponents, supporters, and those with a neutral position.

Opposition

Those who oppose globalization, usually conservatives, consider it to be a western invasion via trade, media, and the internet. Supporters are concerned with the exploitation of workers, environmental impact, and dis turbance of income distribution. They are concerned about the future of Third World countries. They believe that such countries will become exporters of cheap goods to satisfy the needs of western markets but will have to import their food from the west in return. They believe that globalization penetrates all cultural, political, religious, traditional, and economic structures, with the aim of removing barriers to the free flow of uncensored information.

Amahzoon (2000) argued that globalization is a continuation of the wars initiated by Alexander the Great and resumed by the Crusaders--a war in which bombs, guns, and airplanes are replaced by words, terms, and web pages. This war is launched softly while pretending to spread glittering issues, such as demo cracy and human rights.

Opponents of globalization have called for preventive measures against satellite TV and the internet, both of which are considered plagues, but how can this be controlled today? There have been calls to boycott U.S. products and encourage the purchase of local products, especially food and clothes; and to remove satellite dishes from the roofs, but the response has been limited. Will people turn their backs on current trends and live in isolation? Nothing can stop globalization as it can enter any house anywhere with the permission only of the occupants.

The real question is whether all our boats are floating? Do benefits go to a minority of people while the rest of humanity is left landless and homeless? Are the only boats that will be lifted those of owners and managers? "This tide shall raise the yachts of the rich and may swallow the boats of the poor" (Mander, 1996). Even in the United States, the gap between the poor and the rich continues to widen (Madsen, 1998).

Among many arguments about the misuse of economic theory to support globalization, Alloush (2000) argued that a true laissez-faire approach

> necessitates that labor be also allowed to sell its services anywhere in the world. This means that if TNC's should be allowed to invest and sell freely in the Third World, workers and professionals from the Third World should be allowed to freely travel to work in North America, Europe, and Japan. In fact, while capital has become increasingly mobile, and while goods, services, and information are exchanged across international borders at higher rates than ever, restrictions on the migration of labor have increased.

There are many Moslems who believe that, by embracing Islam as a way of life, wealth will be guaranteed by the Creator who said, "If the people of the towns had but believed and feared Allah, We should indeed have opened out to them (All kinds of) blessings from heaven and earth....".(*The Holy Quran*.7:96). This is historically true because, about fifty years after the death of Prophet Muhammad, it was difficult to find a needy person to collect the Zakat (the alms), one of the five pillars of Islam. The contributions are taken in spiritual fulfillment for purification purposes. In Islam, the rich can become richer and that will be hailed and blessed by the poor who know that they are going to get their share and thus hide no envy or bad feelings. The concern, today, though, is whether those who profit from globalization will be willing to share their Zakat with the poor.

Today, many Moslems, as well as the majority of the world, watch American movies, listen to American music, speak with an American accent, dance to American tunes, wear American jeans, drink American soft drinks, and eat American junk food, after having learned to distinguish, through the globalizing media, the trademarks of American brand names. This has created tension within traditional Moslem societies, such as allowing youth access to vastly different world views. Fascinated by the shiny new trends, young people started to turn their back on their cultural and ethical heritage. The spread of fast food restaurants is a real concern in the Islamic world. Odeh (2000) drew attention to the social and cultural damage that follows the spread of hamburgers and special delivery service. Ismail, Rateeb, and Ismail (2000) warned that many young Saudis queuing for hamburgers, fried chicken, ice cream, and doughnuts at fast food restaurants know nothing about the many once famous Saudi traditional dishes.

Supporters

Those who fully support globalization are usually those who financially benefit from the use of the new technology, freedom, transportation, and means of communication to find cheaper products or new markets. Courses on how to handle e-commerce have become available in many parts of the Islamic/Arab world. Many large companies may soon have no place in the emerging global arena. Unless they go global themselves, they will vanish

in this highly competitive world, taking with them not only the investments and profits, but also the employment opportunities for their workers. Thus, many argue that globalization is good for businesses, employees, and the countries in which they operate. They think that their companies should decide to go global for reasons similar to those suggested by McLean (2001): new markets, economies of scale, production efficiency, access to the world talent pool, technologies, and competitive resources, among others. Supporters also include liberal/non-conservative advocates who encourage secularism and advocate whatever is new in life, and who are inclined to oppose their traditions, thinking that these traditions are the reason for the lack of modernization in their societies.

Neutral

The third group takes a neutral stand. It views globalization as a double-edged sword, whose onward march can never be stopped. As in the case with the internet and satellite dishes, one has to be eclectic and choose what suits his or her objectives and needs. Islam encourages scientific research and inventions that benefit humanity as the first verse that was ever revealed said in a direct order: "Proclaim! (or read!) in the name of thy Lord and Cherisher, Who created" (*The Holy Quran* 96:1). Sheikhs (theology scholars) cannot forbid the use of the internet, videos, or TVs because they can be either used or misused, and it is up to individuals to decide how to use them.

Although he has dedicated much of his book to discussing the dangers and vices of globalization, Bakkar (2000) did argue that globalization provides great opportunities for measuring Islamic nations' achievements against those of others, allows benefits from others' achievements, helps in identifying what can be improved in the Islamic culture, and provides an excellent tool for the propagation efforts and spread of Islam. Agreeing that globalization is a sweeping process whose forward march can never be stopped, he stated that only when God permits a catastrophic accident to the whole universe, such as an atomic war or a severe climate change, will globalization be stopped. As with others in the Arab/Islamic World, he called for common grounds among Moslems so as to face the negative effects of globalization by enhancing deep faith in Allah and the hereafter, consultation with Islamic rulings in every aspect of life, and by reviving basic Islamic values, such as generosity, openhandedness, sacrifice, asceticism in this world and willingness for the hereafter, care of relatives on the maternal side, respect for human rights, cooperation, enjoining Al-Ma'ruf (i.e., Islamic monotheism and all that Islam orders one to do), forbidding Al-Munkar (polytheism and disbelief in all that Islam has forbidden), justice, consultancy, indulgence, and kindness to the needy. A similar approach is held by Al-Osaimi (2001) who ends his article, dedicated to discussing the drawbacks of the WTO, by stating that no one can deny the merits of joining the WTO, such as lowering living costs due to decreases in customs duties, easier passage of exports from the developing countries to the advanced ones, and less burden for merchants due to unification of trading procedures, and surprisingly concluded by calling for hasty joining of the WTO as that will indirectly unify all Moslem countries.

HRD in the Islamic World

Faced by a globally changing world, leaders and scholars have begun to realize the importance of human capital or resources and are giving them more value than natural resources. Dr. Mahathir Muhammad, Prime Minister of Malaysia (Ahmed, n. d.), said: "In our desire to move vigorously ahead, nothing is more important than the development of human resources....It is blindingly clear that the most important resource of any nation must be talents, skills, creativity, and will of its people." Ajarimah (2001) stated that the "implications of this shift from physical to human resources have far reaching effects for national and local leadership" and that "leaders at all levels, in all organizations, need to put human resources at the heart of their strategic planning and day-to–day operations" (p. 16). In fact, government five-year plans in several Islamic states have explicitly called for upgrading the knowledge and skills of the labor force, promotion of managerial competence and initiatives, and other HRD issues. Likewise, large companies, like Saudi Aramco, the major Saudi oil company and one of the biggest in the world, allocate large portions of their annual budgets to the training and development of their human assets.

Islamic Work-Related Values

Nobody can deny the effect of values, beliefs, and norms on the individual's work and management style. Since Islam is very influential in the daily practices of its followers, it can be taken as a framework for HRD. The following work-related issues can be found as characteristic of Islam:

- Equality before God. Islam promotes the concept that all people are equal and the off-spring of the first couple, Adam and Eve: "O mankind! We created you from a single (pair) of a male and a female, and made you into nations and tribes, that ye may know each other..."(*Holy Quran*: al-Hujurat 49:13).

- Solidarity and unity of the group, whether at work or in society; Al Bukhari narrated the Prophet's saying, "You see the believers as regards their being merciful among themselves and showing love among themselves and being kind, resembling one body, so that, if any part of the body is not well, then the whole body shares the sleeplessness (insomnia) and fever with it" (Saheeh Al Bukhari: Volume 8, Book 73, Number 40).
- Overall change in organizations is not possible unless it is intrinsic and self driven: "...Verily never will Allah change the condition of a people until they change it themselves (with their own souls)..." (Holy Quran: The Thunder: 13:11).
- Wrong discretionary decisions are rewarded, not punished. Moslems believe that, if one is confronted with a situation where a person has to make a decision and makes the right one, then there will be two rewards: once for making the decision and another for being right; otherwise, the person will still be rewarded for trying. This encourages people to act on their initiative.
- Learning (self-development) is an ongoing process and mandatory. Each Moslem is asked to seek knowledge from cradle to tomb and to seek even in China, the farthest place for the early Moslems.
- Individual accountability, according to Ajarimah (2001), falls under the concept of itqan, which translates as high quality or perfection. He argued that "Islamic culture teaches that 'itqan' is to be pursued in every action taken without any exception" and that "in some modern-day business operations this term is used synonymously with total quality management (TQM)" (p. 10).
- Encouragement of consultation (Shoura) at all levels of decision making emerges from the Prophet being ordered to consult with his followers on every affair in the Quran. "Pass over (their faults), and ask (Allah's) forgiveness for them; and consult them in the affairs" (*Holy Quran*: Al-Imran 3:159). Furthermore, the believers are described as "... those who answer the Call of their Lord and perform As-Salat (prayers), and who (conduct) their affairs by mutual consultation" (*Holy Quran*: Ash-Shûra: 42:38).
- Individual responsibility within a framework of cooperation with others supports the value of teamwork as an engine of survival and prosperity. Ajarimah (2001) stated that "many verses in the holy Quran admonish the faithful to work together and in harmony while assuming their individual responsibility with due consideration given to accountability as well" (p. 10).
- Kind treatment of subordinates with family-like relationships with them.
- Fatalism but with individual responsibility. Moslems believe that their fate is in the hands of their Creator. They are ordered to address all possible causes and take all precautions when performing a task, but when something happens that is outside one's control, it is attributed to fate.
- Commitments to honor, honesty, respect for parents and older persons, loyalty to one's primary group, hospitality, and generosity are held deeply by a majority of the population (Ali, 1996).
- Responsibility for others is supported by the Prophet, who stated that each one is a (shepherd) who is accountable in front of God for whatever he or she supervises.

Sherif (Tayeb, 2000) identified nobility, patience, self-discipline, good appearance, abstinence, resolve, sincerity, truthfulness, servitude, and trust as major Islamic values, but he provided no implications for the workplace. In addition, Endot (Tayeb, 2000) identified 11 major values of Islam that lead to a "respectable nation": trustworthiness, responsibility, sincerity, discipline, dedication, diligence, cleanliness, co-operation, good conduct, gratefulness, and moderation. These values have consequences for organizations and are incorporated by the Malaysian government as part of its Islamization policy.

Islamic work values prevail on the micro and macro levels. Certain organizations in Malaysia are reported to have placed a great emphasis on worship. In one company, Endot (Tayeb, 2000) found that "management urged their subordinates to understand that they were accountable for their work not only to the organization, but to God (Allah), and that their work was considered by Islam as a form of worship of God." This implication has tremendous potential effect on the individual's conduct at work. There is a stereotype that the work ethic is weak in countries where Islam dominates. Unfortunately, this is true of many Moslems who underwent a kind of westernization process or those who have been exposed to other cultures.

Implications for HRD

Opponents of globalization are pretty sure that this process with its merits and defects cannot be stopped as it has become inevitable. We cannot stop the internet and throw the satellite dishes off the roofs of all the people. Thus, HRD practitioners in the Islamic world have a role to play in helping their people absorb globalization and benefit from it. One major role would be to create learning organizations. Related to this is the task of changing the type of training that is still dominant in the region. Globalization requires systematic, not haphazard, on-the-job training and

self-development to provide highly skilled workers. Bakkar (2000) argued that Moslems can never develop their countries unless they encourage scientific research, which requires a major change in curricula and delivery methods at schools, hence a major change in the education system. Workers, supervisors, and managers should receive training to prepare them for thinking and acting globally. Encouraging global mindsets is necessary not only for strategic planning, but also for training that enables workers to deal with other workers from other countries.

Based on the work values discussed above, the following implications can be useful for global companies that plan to do business in the Islamic world, especially for their HRD professionals:

- Hiring employees who strongly support the IWE means hiring employees who believe in hard work, cooperation and competitiveness in the workplace, meeting deadlines, and justice and generosity in the workplace.
- Understanding managerial values will help organizations in assigning the right person to the right managerial role. When there is an alignment between managers' and organizational values, there will be a greater chance for organizational goal attainment and success.
- Having similar value systems allows people to work more harmoniously and be more satisfied with their jobs. HRD will need to develop similar values in their employees (Hunt & At-Twaijri, 1996).
- Developing managers with global value systems and mindsets is critical as more companies in Islamic countries move to become global. This involves strategic thinking on a global level with regard to markets, resources, and clients. Such companies should change the role of their HRD officers to be more strategic in creating a process for development of their human assets. Workers need to be intrinsically receptive to change.
- Planning proactively to be ready to deal with complexity and ambiguity, which are characteristic of the global marketplace, is essential.
- Constantly learning requires the use of all available resources. Self-development and learning, especially of soft skills, should be incorporated into work processes using coaches when necessary. Lifelong learning and self-development can be encouraged not only as a requirement for job survival, but also as religious fulfillment.
- Developing the ability to work in environments where hierarchy is dissolving supports teamwork.
- Developing skills in forming virtual teams via e-mail, phones or videoconferencing is important.
- Taking charge of developing core competencies will help define the companies themselves. These competencies may change according to the emerging needs in the changing global market.
- Making on-the-spot business decisions without having to wait for instructions from headquarters will assist in meeting the challenge of short cycle times imposed by global competition and fast technology. This requires that empowerment, decision making, risk taking, and innovation be embedded in the work processes, keeping in mind that Moslems expect to be rewarded even for making the wrong decision.
- Working with solidarity in mind clearly implies a shift from task-based to process-oriented training. It also requires training in common team skills and systems thinking.
- Establishing incentives for high achievers through special recognition and reward programs will retain such employees.
- Continually developing workers to be multi-skilled, re-skilled, and even become teachers who are ready to teach and certify other employees in a learning organization setting.
- Freely and easily communicating with anyone throughout the company is supported by Moslem values.
- Inspiring workers by finding ways to retain intellectual capital.
- Developing employee multilingual capability will meet the growing demand for an international language. While English dominates international business and technology, Arabic is an option for gloablizing within Moslem countries, such as Malaysia, Pakistan, Saudi Arabia, Jordan, Bangladesh, etc.
- Addressing the loss of skills from retiring employees has become critical as many retirees who have accumulated wisdom are forced to leave their jobs to open vacancies for young ones.

In addition, Ali (1996) suggested that strong commitment to the IWE has the following implications for OD practitioners:

- First, emphasis on hard work, meeting deadlines, and persistence in securing work supports establishment of a timetable and the clarification of goals and responsibilities are essential for carrying out successful change interventions. In a culture where saving face is important, meeting OD goals takes on an added value.
- Second, work is viewed not as an end in itself but as a means of fostering personal growth and social relationships. In this context, group interactions and team activities, if designed appropriately, could result in the optimal facilitation of intended changes. Moslems tend to have very good relationships, and social links after work can be fostered and utilized for the benefit of the job.
- Third, dedication to work and creativity are seen as virtues. OD practitioners should utilize these values in their interventions.

- Fourth, justice and generosity in the workplace are necessary conditions for society's welfare. This has three implications:
    1. The OD practitioner must show that he/she is attentive to and concerned about human needs.
    2. Social skills and effective public relations are essential to the success of a change intervention. Once commitment is obtained, there will be smooth implementation.
    3. Goals for change should be directed towards serving the community or the society as a whole. OD practitioners should demonstrate the fruits of the results to both the organization and the society. (See also McLean & McLean, 2001, for more on the role of HRD in community or society building.)
- Finally, the IWE places more emphasis on intention than on results. Thus, the OD practitioner should articulate change goals and make sure that personal interests are not pursued at the expense of the group or community. This point is consistent with a core OD value favoring a procee orientation over a results orientation.

HRD professionals who work for global companies will face difficult ethical questions. Should one work for an organization that makes money by paying low wages in a developing country, takes advantage of low labor costs and few labor laws (e.g., health and safety, child protection, etc.), or ignores the environment? Should one choose to work from within the organization, hoping to influence the organization to improve its treatment of employees, or should one choose to resign in protest (knowing that the organization will continue regardless and probably without change)?

HRD's role in answering these questions can by found in McLean (2001) who suggested that HRD can support globalization while working to minimize exploitation. He stated that,

> given the value systems that exist within HRD, and in OD in particular, HRD professionals can serve as a conscience to an organization that does not understand the implications of exploitative actions. This does not insure that such activities will not take place, but it does help to know that someone does have the ethical task. (p. 360)

Recommendations and Conclusion

Globalization is not a temporary phase, and its effects and consequences are going to last forever. In addition, the impact of globalization on nations is not the same; it varies from nation to nation. Europeans, for example, may benefit from globalization because they share many of the same roots, values, and opportunities as U.S. Americans, while the gap between the Islamic culture and that of U.S. Americans is vast.

This review cries for the collection of empirical data, both quantitative and qualitative. How do Moslems in various country cultures feel about the issues related to globalization? How do these views differ from views held by those from other religious backgrounds and from other countries? Do religious and country cultures affect how people feel about solutions to the concerns about globalization? Such research will add considerably to the debate presented here.

Opposition to globalization is not unique to Moslems. Yet, Islamic companies should go global to find a place under the sun. Moslems possess the ethics and values that can influence the globe as they did a few centuries ago. Concerns of those who oppose globalization should be respected, but implications to sail with the tide–not against it–are to be encouraged. Finally, the interesting paradox of globalization is that this paper could not have been written had there been no access to the many useful articles on the web, as is obvious from the references, and the ease with which the authors could share drafts through the internet.

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New Technologies, Cognitive Demands and the Implications for Learning Theory

Richard J. Torraco
University of Nebraska

The cognitive demands of new technologies are poorly understood for many reasons. This paper identifies the cognitive demands of tasks involving the use of new technologies. The paper examines how well theories of learning address these cognitive demands. Four theories—those of Scribner, Schon, Wenger, and Hutchins—are analyzed for their power to explain human cognition and learning as they relate to the use of new technologies. Finally, the implications of this study for further research on theory building and the role of technology in augmenting human performance are discussed.

Keywords: Theory Building, Cognitive Demands, Learning Theories

New technologies have been shown to place unique cognitive demands on those who use them. Four specific characteristics of tasks involving the use of new technologies have been identified. They are *contingent versus deterministic tasks, distancing technologies, stochastic events*, and *systemic interdependence*.

- *Contingent versus deterministic tasks*. When applied to what were once routine, predictable tasks *(deterministic tasks)*, new technologies have substantially increased the contingency of these tasks by reducing their transparency and increasing their speed. Technicians and customers can no longer see the flow of information and materials and must infer from outputs what occurred earlier in the work process (Pentland, 1997).
- *Distancing technologies* such as digital displays, controls, and sensor technologies, remove the operator from the operating location and eliminate the physical cues and sentient information from which knowledge can be derived (Woods, O'Brien, and Hanes, 1987; Zuboff, 1988).
- *Stochastic events* are randomly occurring and unpredictable events that are properties of new technologies (Weick, 1990) and flexible manufacturing systems (Norros, 1996). Dealing with the disruptions from new technologies increases the cognitive demands placed on technicians who must use them.
- *Systemic interdependence* is the system of relationships needed to assure that one's work is coordinated with the work of others (Adler, 1986).

Each of these task characteristics places unique cognitive demands on those who use new technologies. The cognitive demands of these task characteristics are discussed next and summarized in Table 1. (See Table 1., *The Cognitive Demands of Task Characteristics*).

Table 1. *The Cognitive Demands of Task Characteristics*

Task Characteristics	Cognitive Demands
Contingent versus Deterministic Tasks	• Mental reconstruction of problem and causes • Capability for systematic search and pragmatic solutions • Ability to go beyond scripted procedures
Distancing Technologies	• Capabilities for inference, imagination, and mental modeling to understand what is going on elsewhere • Reconciliation of mental representation of work process with actual work process
Stochastic Events	• Movement from emotional arousal to constructive thought and action • Memory (information storage and retrieval) to reconsider means-ends relationships and desired end-states • Improvisation—the abilities of the bricoleur
Systemic Interdependence	• Interpersonal skills • Transactive memory

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Cognitive demands of contingent tasks. New technologies have substantially increased task contingency by reducing their transparency, increasing their speed, and expanding the menu of options available for task accomplishment. Work processes that were formerly separate and observable have been combined through process engineering (Davenport, 1993) and have disappeared into computer-controlled machines and communication technology (Weick, 1990). Technicians and customers can no longer see the flow of information and materials and must infer from outputs what occurred earlier in the work process. New technology also feeds social pressures for rapid transactions, especially in customer service situations. Pre-determined procedures are frequently abandoned to expedite customer requests. As witnessed in equipment repair (Orr, 1996), software support (Pentland, 1997), science laboratories (Barley and Bechky, 1994), insurance claim processing (Wenger, 1999), automobile assembly (Graham, 1993), and military operations (Weick and Roberts, 1993; Hutchins, 1995), new technologies have made technical tasks more contingent than ever.

Since technical work is filled with novel or poorly defined problems that cannot be fully anticipated in advance (Barley and Orr, 1997), technicians are often confronted by technology breakdowns of ambiguous origins that cannot be resolved with schematics and procedural knowledge alone. Since their problem-solving algorithms are inadequate for the variety and unpredictability of these problems, technicians must rely instead on pragmatic rules of thumb and other shorts cuts afforded by the task environment. To understand and respond to ambiguous situations, workers must make use of improvised materials, local conditions, and social circumstances, thus deploying contingent work strategies that reflect the changing properties of the task environment.

Cognitive demands of distancing technologies. Distancing technologies are present in work environments ranging from industrial factories (Zuboff, 1988) to high technology settings (Pentland, 1997). Digital displays, controls, and sensor technologies at the operator's workstation are symbolic representations that distance workers from the physical and sensory referents present at the actual sites of operation. In the pulp and paper mills studied by Zuboff, instrumentation formerly was located on or close to the operating equipment, allowing the operator to combine data from an instrument reading with data from his or her own senses. *Distancing technologies* removed the operator from the operating location and eliminated the physical cues and sentient information in which knowledge was based. The problems created by physical distance are magnified by the computer controls of most distancing technologies that display indicators on separate screens of a computer monitor. To recognize irregular patterns among the data or to initiate novel search sequences, the technician must remember what earlier screens have shown and hope that the readings have not changed while subsequent screens are accessed. However, human factors research has shown that it is easier to recognize patterns when data are presented simultaneously rather than serially. Technicians in production control rooms who use this technology can easily create novel search sequences when they are able to sweep visually across an array of dials that present data at the lowest level of detail (Woods, O'Brien, and Hanes, 1987).

Separation from the operating environment requires workers to interpret symbolic, electronically-presented data. This increases cognitive demands to understand what is going on at remote operating sites. Software support technicians and production control room operators have to imagine the conditions in the operating environment that cannot be displayed by their information systems. Before attempting to solve problems, they must first mentally visualize the conditions the give rise to the problems. Thus, the physical and psychological separation created by distancing technologies increases cognitive demands for inference, imagination, and mental modeling to understand what is happening elsewhere.

Cognitive demands of stochastic events. Complexity is added to the task when it is interrupted by stochastic events. *Stochastic events* are randomly occurring and unpredictable events that are properties of new technologies (Weick, 1990) and flexible manufacturing systems (Norros, 1996). When new technologies are implemented in industrial work processes they frequently produce system disturbances to which operators must respond, even though they have not yet developed expertise in the use of these technologies (Norros, 1996). Today's technologies present problems due to their instability, reduced transparency, and tendency to breakdown. For example, many software-dependent systems are intentionally pushed through product development and quickly delivered to market. Product testing is short-circuited since implementation is often the means by which the technology itself is designed. Such development-delivery tradeoffs result in "buggy" software, incomplete information networks, and password-activated technologies that won't start. Dealing with the disruptions from unfinished technologies and prototypes increases the cognitive demands placed on technicians who must use them.

When a sudden, unpredictable event disrupts a task, it triggers emotional arousal (Weick, 1990). Once emotion is stimulated it increases as long as the interruption goes unexplained, especially when work stoppage is costly or risky. Stochastic events require rapid movement from emotion to action—from arousal, to the search for explanations, to actions that produce information about possible causes. This occurs as the worker tries to subdue emotional interference with thought and action.

Cognitive demands of systemic interdependence. The interdependencies needed to assure that one's work is coordinated the work of others have been termed *systemic interdependence* by Adler (1986). Systemic interdependence requires "ongoing and flexible integration of hitherto distinct functions of operations, systems, design, and training. The reciprocal nature of this interdependence in operations is exemplified in the reliance on common databases. Users thereby become dependent on other users' data input accuracy" (p. 19).

Systemic interdependence requires interpersonal skills and the ability to work effectively with others on the same project despite different social and technical backgrounds. Such interdependence is strengthened through the use of *transactive memory systems* (Wegner, Erber and Raymond, 1991). Transactive memory is based on the premise that we need not know a particular subject ourselves if we know where to find information about it. Transactive memory systems are integrated and differentiated structures in which related information is held by different group members. It is the sharing of relevant data that yields the higher-order insights and generalizations that are valued in these work environments.

These four task characteristics—*contingent versus deterministic tasks, distancing technologies, stochastic events,* and *systemic interdependence*—place unique cognitive demands on those who use them. How well do current theories of learning address these cognitive demands? The next section discusses the extent to which four selected theories explain human cognition and learning as they relate to the use of new technologies.

Theories of Learning and the Cognitive Demands of New Technologies

The theories of Scribner (Tobach et al, 1997), Schon (1983, 1987), Wenger (1998), and Hutchins (1995) are analyzed for their power to explain learning processes related to new technologies in the following sections.

Scribner's model of practical thinking at work. Scribner used *activity theory* as developed by Leont'ev (1981) to bridge the conceptual relationship between knowing and doing in her cognitive studies of work. Scribner's model of practical thinking is strongly influenced by the notion of activities as mediators of knowing and doing. The collection of Scribner's cognitive studies of work concludes with a paper that presents her model of practical thinking (Tobach et al, 1997). The model is organized around four principles synthesized from Scribner's studies of dairy workers (Scribner, 1984), industrial machinists (Martin and Scribner, 1991), bartenders (Scribner and Beach, 1993), indigenous literacy in West Africa (Scribner and Cole, 1981), and practical and theoretical arithmetic (Scribner and Fahrmeier, 1983). Scribner's research sought support for the premise that cognitive skills take shape in the course of participation in socially organized practices. Her results are embodied in the four principles of her model: (a) economy of effort functioned as a criterion distinguishing skilled from amateur performance. The "least-effort strategy" was consistently followed whether mental or physical effort was minimized and regardless of resource constraints in the work environment; (b) problem-solving strategies were dependent on specific knowledge about materials and conditions in the immediate task environment; (c) diversity and flexibility of solution modes distinguished expert problem-solvers from beginners; (d) more experienced workers replaced all-purpose algorithms with a menu of solution modes fitted to properties of specific problems in changing environments. Scribner summarized the four principles in this way: "Thinking in the dairy was goal-directed and regulated by a principle of economy which, operating under changing conditions and on the basis of knowledge and information in the environment, generated flexible solution procedures adapted to particular occasions of use" (Tobach, 1997, p. 380).

Scribner's work and the cognitive demands of new technologies. Scribner's work demonstrated that workers seek pragmatic solutions through economy of effort regardless of the contingent or deterministic structure of the task. Her study of working intelligence (Scribner, 1984) fully accounts for task unpredictability and the need to go beyond scripted procedures to accommodate the changing demands of the task environment. For example, since each dairy order was different, delivery drivers modified their problem framing and arithmetic solutions to conform to the benefits of either their calculators or paper and pencil computations. Ways of solving problems followed means of arriving at solutions.

Scribner's model emphasizes that successful work strategies are goal-directed and vary adaptively with the changing properties of the problems and resources encountered by workers in the task environment. It explains how workers might respond to stochastic events by relying on flexible solution strategies and improvising with available tools and materials. Task disruptions might trigger the reassessment of means-ends relationships and solutions would reflect Scribner's concept of mental and physical effort saving. Contextual factors would strongly influence how workers in a production environment learn and adapt their skills on-the-job.

Scribner's model was developed twenty years ago before technologies considered new today were developed. While today's workers may use Scribner's least-effort strategies and context-specific solutions, it is unclear how well Scribner's model of practical thinking would address the cognitive demands of new satellite or internet-based

distancing technologies or explain the roles of inference and mental modeling to enable more effectively use these technologies.

Schon's theory of reflection-in-action. Schon (1983) argued for a new epistemology of practice that takes as its point of departure the competence and artistry already embedded in skillful practice—especially, the *reflection-in-action* through which professionals think about what they are doing while they are doing it. Reflection-in-action is a theory of learning that explains how reflective practitioners use knowledge and problem solving in their work. *Reflection-in-action* is an iterative process that moves through (a) assessment of the situation, (b) testing of one's preliminary sense of the problem through experiments, (c) examination of results, and (d) reassessment leading to another cycle of problem reformulation. Learning occurs through an iterative process of purposeful actions, discovered consequences, implications, reassessments, and further actions. We conduct experiments to examine the validity of our judgments and, in the process, expose ourselves to new possibilities for learning. According to Schon (1983), "the situation talks back, the practitioner listens, and as he appreciates what he hears, he reframes the situation once again" (p. 131). This theory of learning prompted Schon to raise a critical question: What kind of professional education would be appropriate to an epistemology of practice based on reflection-in-action?

His subsequent work (Schon, 1987) answered this question by proposing that university-based professional schools should learn from such deviant traditions of education for practice as studios of art and design, conservatories of music and dance, athletic coaching, and apprenticeship in the crafts, all of which emphasize coaching and learning by doing. Professional education, Schon argued, should be redesigned to combine the teaching of applied science with coaching in the use of reflection-in-action strategies. He proposed a generalized educational setting, the *reflective practicum*, as a model for professional development in which learning occurs by doing, with the help of coaching, especially through a dialogue of reciprocal reflection-in-action between coach and student.

The reflective practicum is a methodology for implementing reflection-in-action in the sense that it brings together the necessary material and contextual resources, along with the coach's personal and technical support for critical reflection. It provides an environment in which students can learn by doing, not simply through trial and error, but through critical refection as students are coached in refection-in-action strategies.

Reflection-in-action begins with a situation that yields spontaneous routinized responses. As long as the situation appears normal, our responses are tacit and spontaneously delivered without conscious deliberation. Yet routine responses sometimes produce a surprise—an unexpected outcome, pleasant or unpleasant, that does not fit our present knowledge schema. This unexpected consequence triggers reflection. We think about the consequence and ponder why it occurred and, at the same time, we ask "How have I been thinking about this?" Our thoughts turn back on the surprising phenomenon and, at the same time, back on itself. Thus, reflection-in-action is a critical function through which we consciously or unconsciously question the assumptions of our present knowledge.

Schon's work and the cognitive demands of new technologies. Schon's theory accounts for contingent tasks by acknowledging that professionals are frequently confronted by novel situations and must construct their interpretations and responses accordingly. Schon recognized that procedural knowledge and problem solving algorithms have limited applications in practice, where most problems are contextual and difficult to predict. The capability for reflection-in-action addresses these cognitive demands by allowing workers to bypass scripted procedures to arrive at solutions for problems that cannot be fully anticipated in advance.

Reflection-in-action also explains the cognitive processes needed to respond effectively to stochastic events. A sudden disruption arouses emotion and triggers reassessment of means-ends relationships. Schon's discussion of mental experimentation explains how workers might respond to a sudden systems failure by probing the unexpected disruption, forming a tentative understanding of the event, testing their understanding, and reframing the problem to arrive at a solution. Thus, workers respond to emergent situations by constructing new knowledge through reflection-in-action.

Although Schon's theory can be used to explain how workers meet these cognitive demands, its applicability to non-professionals and in non-university settings is less apparent. Schon's theory reconceptualized teaching and learning in the professions. What about technicians, supervisors, and skilled personnel who may not be considered "professionals?" Are these people considered capable of learning through "reflection-in-action?" In addition, Schon's work provided a new model of education for university-based professional schools. What about the learning that occurs outside of schools as one develops on the job? Does Schon's model for educating the reflective practitioner apply to learning in the workplace that may occur after a university-based education? These questions remain unanswered.

Communities-of-Practice. Communities-of-practice are informal associations of workers who share common work problems and seek the benefits of learning from one another. In such communities, learning occurs primarily through participation in social practice (Wenger, 1998). Underlying communities-of-practice as an observable

phenomenon is Wenger's theory of social learning. The theory embodied in communities-of-practice builds on previous work in social learning theory and situated cognition. Social learning theory explains learning as a product of the reciprocal interactions among behavior, cognition, and environmental factors. Learning can occur directly, especially when one's learning self-efficacy is high, or vicariously through behavior modeling by others (Bandura, 1977). Situated cognition starts with engagement in the activity itself, not with a preconceived model of how learning should occur. Situated cognition follows an "activity—perception—representation" model, in which the cognitive dynamics of learning appear less open to the predetermined knowledge schemas that are dominant in formal instruction (Brown, Collins and Duguid, 1989). When people lack experience with a situation or are introduced to a new concept, presenting a relevant model may catalyze the formation of mental representations of what is learned. Along with new perceptions and relevant past experiences, the model becomes part of the present context for learning, in which the learner's activities and perceptions precede mental representation.

Four constructs comprise the framework for Wenger's theory of learning: *practice*—the shared historical and social resources, frameworks, and perspectives that can sustain mutual engagement in action; *community*—the social configurations in which our enterprises are defined as worth pursuing and our participation is recognizable as competence; *identity*—how learning changes who we are and creates personal histories of becoming in the context of our communities; and *meaning*—the ability to experience our life and world as meaningful. Wenger's assumptions about learning and the nature of knowledge include the premise that meaning—our ability to experience the world and our engagement with it as meaningful—is ultimately what learning is to produce. Another assumption that grounds communities-of-practice is that engagement in social practice is the fundamental process by which we learn and so become who we are. Thus, communities-of-practice provides a broad conceptual framework for thinking about learning as a process of social participation.

The concept of *practice* is carefully defined by Wenger as experiences that include both the explicit and the tacit. Practice involves the language, tools, documents, images, symbols, well-defined roles, specified criteria, codified procedures, regulations, and contracts that various practices make explicit for a variety of purposes. But is also includes the implicit relations, tacit conventions, subtle cues, untold rules of thumb, and so on. Most of these are never articulated, yet they are unmistakable signs of membership in communities of practice and are crucial to the success of their organizations. Learning in practice addresses the need for members to acquire skills and information, but learning goes beyond gaining competence. Members use competence to form an identify of participation. "Practice connotes doing, but not just doing in and of itself. It is doing in a historical and social context that gives structure and meaning to what we do. In this sense, practice is always social practice" (p. 47).

Identity in a community is fostered by allowing members to participate peripherally, yet legitimately in practice. Legitimacy and peripheral participation in practice are often mutually exclusive. Newcomers seeking to participate in the work of a community of practice are granted peripherality (for example, as students) but denied legitimacy. Conversely, newcomers may be granted legitimacy but are denied the opportunity for development through peripheral participation. The periphery of practice is not only an important site for learning, but it can be a valuable source of innovation. Sustaining the peripherality of members' perspectives is sought increasingly as a way to generate fresh insights into current practice and new directions for the future.

Wenger's work and the cognitive demands of new technologies. Participation in communities-of-practice allows each member to draw on collective knowledge to construct responses to unanticipated or poorly-structured problems. Wenger illustrates his theory with ethnographic accounts of insurance claims processors who had to respond to customers' questions about claims coverage given only standardized forms and procedures and without full knowledge of how contested claims were ultimately resolved. The tasks they faced were made more contingent by customers' concerns about co-payments and company concerns about overpayments, especially in cases of multiple coverage. Workers tried to make sense of these ambiguous situations primarily through social configurations—the networks that claims processors spontaneously formed with each other, not by following claims processing procedures. Communities-of-practice allowed workers to go beyond standardized procedures and reach pragmatic solutions through mutual engagement.

The creation of identity is at the core of how communities-of-practice enable members to meet the cognitive demands of new technologies. Wenger maintains that who we are and what we can do are transformed through the process of becoming members of communities-of-practice. Identity and membership permit further engagement in social practice and access to collective knowledge. Although a member may lack specific knowledge about a problem, communities-of-practice provide collective knowledge that enables a response to the unpredictability and ambiguity of new technology (Orr, 1996). Legitimate peripheral participation (Lave and Wenger, 1991) and identity (Wenger, 1998) allow members of communities-of-practice to share the insights and generalizations that help them meet the cognitive demands of new technologies (Weick and Roberts, 1993).

Although Wenger's theory addresses the cognitive demands of new technologies, other questions about the theory remain unanswered. The theory's main concepts—meaning, identity, community, and practice—are defined as vehicles through which individuals can find fulfillment through their membership in communities-of-practice. Each is defined in a personal way as a phenomenon that, if experienced as part of a community-of-practice, can change who we are and how we interpret the world around us. However, there is an intimacy about communities-of-practice that seems removed from the realities of work and the turmoil of the marketplace—the environment in which communities of practice must survive. In this way, the theory does not fully explain organizations as system in which the learning of members is directly influenced by the demands of forces and stakeholders external to the system.

Cultural cognition. Hutchins (1995) conceptualized cognition as a complex phenomenon in which practice, learning, and the work environment are all simultaneously transformed. "The very same processes that constitute the conduct of activity and that produce changes in the individual practitioners of navigation also produce changes in the social, material, and conceptual aspects of the setting " (p. 374). These changes occur at different rates and degrees of intensity and reflect histories of different lengths, but they all intersect during any moment in human practice. In the course of task performance, learning occurs and these activities create elements of representational structure (for example, written notes or an improvised tool) that survive beyond the end of the task. It is because these processes interact simultaneously that Hutchins considers cognition at work a fundamentally cultural process.

Hutchins argues that as sociocultural systems, work environments have cognitive properties that are distinct from the cognition of those who perform the work. He confronts contemporary thinking in cognitive science by challenging the adequacy of symbolic processing alone to explain how we use cognitive abilities to solve environmental problems: "Notice that when the symbols are in the environment of the human and the human is manipulating the symbols, the cognitive properties of the human are not the same as the properties of the system that is made up of the human in interaction with these symbols. The properties of the human in interaction with the system produce some kind of computation. But that does not mean that the computation is happening inside the person's head" (p. 361). This appreciation that knowledge can only be created through human interaction with the sociocultural system is the foundation for Hutchins' theory of cognition.

Hutchins' work and the cognitive demands of new technologies. Hutchins opens *Cognition in the Wild* (1995) by describing a stochastic event—the USS Palau loses all power and risks running aground in a narrow channel while entering San Diego harbor. Only through expert navigational skills and some luck is the crew able to recover the vessel and safely come to anchor.

To meet the cognitive demands of these situations, workers must quickly overcome emotional arousal and construct solutions from procedural knowledge, environmental short-cuts and bricolage (Levi-Strauss, 1966). Hutchins shows that this process is strongly shaped by the tools and techniques of practice, themselves historically-developed. Learning is made easier in work settings where tools are used in public and the details of technology are observable, as they are in the practice of navigation. Hutchins describes how the difficulty of piloting large ships is made easier by implementing the *fix cycle*—a series of procedures in which representations of the position of the ship in its environment are propagated across a series of representational media from initial telescope sightings to correcting of the ship's course. These tools transform the task of navigators by mapping it into a domain, using the navigation chart and other artifacts, where the answer or the path to the solution is apparent.

The fix cycle illustrates a central premise of Hutchins' theory of cultural cognition—the cognitive demands of complex tasks are best met by using technology to simplify the task, not to amplify cognitive ability. Illustrating the same point, Norman (1997) gives the example of using a computer for writing. Instead of designing computers and software programs to help the author create ideas with dialog boxes, menu choices, and other symbolic clutter, the computer should be used as a word processor to simplify the output process. Rather than extending one's cognitive abilities, technology should transform what are normally difficult cognitive tasks into easy ones.

Implications for Further Research

This study has several implications for future research. This section summarizes key ideas from the preceding discussion and offers directions for future research on theory building.

Some features of sound theories. The four theories of learning discussed in this paper provide comprehensive and meaningful explanations of learning at work. Why is this? Considering the need to reflect the workplace, what are the features of a good theory of learning? Five features of the learning theories covered in this paper are summarized next.

Each theory describes specific cognitive processes. Schon describes the dynamic of learning as iterative cycles of reflection-in-action. Hutchins explains learning as a sociocultural process that occurs simultaneously with the

activities of practice and changes in the environment. Scribner described the specific solution strategies that were devised by experienced workers. Wenger described how learning in practice is generated by the dynamic tension between experience and competence. All four theories describe specific cognitive processes and clearly explain how learning relates to other aspects of the theory.

Each theory addresses learning as an enabler and product of work practices. Rather than treating either learning or work practice as dominant, each theory reflects their reciprocal relationship by grounding learning in the conduct of practice. Work practice is one of four central concepts in Wenger's theory of social learning; Schon proposed the *reflective practicum* as the setting to operationalize his theory; Scribner showed how cognitive skills were dependent on the materials and conditions of practice; and Hutchins proposed practice as the intersection of work activity, learning and the environment, where all are simultaneously transformed.

Each theory explains how learning occurs in authentic work settings. Each theorist relied on ethnography or intimate knowledge of practice to describe the work settings and define the tasks in which learning was studied. None of the studies from which these theories were derived were purely theoretical or carried out in laboratories or other experimental settings.

Each theory is comprehensive in its treatment of the behavioral and environmental influences on learning. These theories include concepts that cover the full range of ways in which working knowledge is created and used. Each theory accounts for personal and experiential knowledge, knowledge derived from practice-specific tools, techniques, and conditions, knowledge from relationships with others, and knowledge associated with the larger system, organization, or environment.

Each theory offers propositions that can be generalized to other settings. Although each theory is based in studies of specific work environments and occupations, all theories offer principles of learning that have been applied elsewhere. Scribner's "least-effort strategy" has been demonstrated in non-industrial settings (Scribner and Cole, 1981; Scribner and Fahrmeier, 1983). Schon's reflection-in-action has been applied to the preparation of architects, urban planners, artists, musicians, and althletes (Schon, 1987). Wenger's theory has been used to explain communities-of-practice among photocopier repair technicians (Orr, 1996), refrigeration technicians (Henning, 1998), and insurance claims processors (Wenger, 1998). Hutchins' work has been applied to airline pilots (Hutchins and Klausen, 1996) and to the design of the human-computer interface (Hutchins, Hollan and Norman, 1986).

These five features of the learning theories discussed in this paper provide a template for developing better theories of learning. In addition to the criteria for evaluating theory offered by Bacharach (1989), Patterson (1983), and Whetten (1989) that can be applied to all theories, the features listed above are specifically applicable to theories intended to model the dynamics of learning and working.

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A Study of Technology Transfer for Thai Workers in Thailand

Palapan Kampan
Boon-Anan Phinaitrup
National Institute Development Administration

The paper will show how to make an effort toward the transfer of technology as major issue in Thai manufactures. The paper intends to provide some insights into the transfer of technology from skilled foreign workers to Thai workers in Thailand. The managers, government, and educators have played an essential support role in the transfer of technology and have encouraged Thai workers to absorb and adapt the new technology

Keywords: Transfer of Technology, Skilled Labor, Training

Since industries in Thailand are growing, there is an increasing need for the transfer of technology from overseas. Thailand wants to approach industrialization with an open-economy and to promote exports. In order to do this; many researchers have recognized the importance of obtaining the appropriate technology. Chantramonklasi (1994) stated that the transfer of technology could assist the country in achieving its economic goals and could also improve the standard of living of Thai people. The government has also strongly promoted foreign investment in the industry. For instance, the government has provided some training programs, has promoted industries, reduced taxes, established government units such as the Board of Investment (BOI) to look after foreign investment, and has promoted exports. In addition, the government has encouraged some high technology small businesses, which need the most modern technology in order to manufacture goods or provide service. This means that the investment policy of the government is increasingly concerned with the entry of domestic firms into the industrial market. The country needs to invest in innovative Thai industries, which must compete worldwide, and also to encourage more technology transfer.

Such an investment policy is needed in order to convince foreigners to invest in Thailand. Some concern has been voiced regarding the investment policy of the Thai government, which allows foreign labor to work here. Firstly, there are more and more foreign workers coming into the country and this means Thai workers have less opportunity to get a job. The second concern is that the transfer of technology has not been accrued including the limited transfer of technology for local staff. Yet another concern is the scarcity of skilled local labor and the restrictions found in technology transfer agreements imposed by technology suppliers.

Unfortunately, few studies have looked specifically at how technology has been transferred to Thai skilled workers. Some studies reported that Thai people were poorly trained. The manufacturer may be aware of the technology requirements for established products but it is still difficult to obtain or develop new product design. In addition, some studies have shown that even where information on technology is available, lack of relevant skills and low levels of education make the use of new technology difficult.

In addition, some universities were not sufficiently equipped to supply skilled manpower to the labor market. Even though many research activities by Thai universities were encouraged, they still are not successful. This is partly because of the poor co-operation between public and private sectors and partly because of a lack of explicit policy and effective measures on the government sector. Tambunlerchai (1980) had showed his survey that Thai partners of Thai-Japanese joint venture investment did not receive much of the technical know-how even they wanted to do so. The technology transfer has been neither sufficient nor effective since the short age of basic training for the manufactures. Thai labors' effort has not been as productive as they should be since the education has not been geared to the real need of manufactures. There is less commitment from Thai labor. Furthermore, teachers have fewer experiences to transfer the knowledge to students. Students in universities are taught theoretically more than the actual practice. The curriculum doesn't modern. There is less workplace for training/practical training.

Therefore, this research focuses on the effectiveness of technology transfer in the manufacturing sector. The researchers will apply a quantitative and documentation approach including interviews, observations, and surveys. Moreover, data collected for the project will be analyzed to provide a broader picture in terms of the effectiveness of technology transfer and how to develop Thai workers.

Literature Review

Thailand's economic growth since the late 1980s has increased. This makes technology a more important element for national development. The current industrial policies of Thailand are designed to promote manufactured exports, labor-intensive industries and agriculture-based industries. The BOI is responsible for

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these activities. The organization is empowered to offer incentives, guarantees, and measures to protect industries against competition, and special exemptions from various laws. Then, many manufacturers have imported technology from abroad in order to assist them in production and management. For instance, there are many manufacturers in Thailand which are Thai-Japanese joint-ventures such as Toyota (Thailand) Co. Ltd., Nissan (Thailand) Co. LTD, and Isuzu Motor Co. (Thailand) Ltd. Large and medium enterprises in the machinery industry have also formed joint-ventures, Thai investors holding about 50 percent of the total investment or less. In the electronic and electrical appliances industry, there are now about twenty large companies producing television sets, radio, refrigerators, integrated circuits, and parts of computers; companies such as Korat Denki Company, Minebear Company, Magnecomp Group Corporation. Many machines and equipment have been imported from abroad (Cooper, 1994) showing that industrial development has relied heavily on imported technology.

In Thailand, modern science and technology have involved the promotion of direct foreign investment and the encouragement of applied research activities by local universities. Foreign direct investment is seen by policy-makers as a way by which technology can be brought into the country, while the local research institutes and universities provide skilled human resources to absorb the new information. The general perception, however, is that the strategy of building capacities in local institutions has not met with much success, in part because of the absence of effective linkages between the public and private sectors, as well as the lack of explicit measures and schemes to promote technological literacy.

This situation has created some concern about technology transfer including
Limited transfer of technology to local staff, restrictions found in technology transfer agreements which were imposed by technology suppliers, the stated and hidden costs of technology agreements, the inappropriateness of the technology introduced, and the scarcity of skilled local labor. For instance, the Thai-Japan joint ventures have failed to transfer the know-how technology to Thai local partners. (Chantramonklasri, 1994)

Another concern is that the report traces the vicious cycle within which many local companies are caught. It begins with a market for technology in which a small number of suppliers face a large number of buyers, with whom costs, terms and conditions are determined individually on the basis of crude bargaining power rather than competition (Chantramonklasri, 1994). Moreover, the buyers are usually uninformed and lack the technical and legal expertise to evaluate alternative sources of technology and to negotiate effectively with suppliers. As a result, contracts are concluded to the advantage of the supplier and the buyers accept restrictions, which have the effect of increasing their dependence on the technology suppliers.

Although the transfer of technology is usually identified with the inflow of foreign capital, there have been questions raised about the prices paid for technology. The disadvantaged position of the buyer and his ignorance about the costs of alternative sources has resulted in unreasonably high profits for the owners of technology (Cooper, 1994). The government study reports that the evaluation of an offer to supply technology grows in complexity when the technology is offered in packaged form, with technical assistance and management provided (Khanthachai, 1987). The offer may contain many hidden costs. In addition, some reports provide information to support the contention that the outflows of funds (foreign remittances and expenses for import receipts) have exceeded fund inflows (foreign capital infusions and export receipts) among Thai joint ventures that have been paying copyright fees and royalties (Ng, 1986).

The technologies that foreign firms have introduced are generally inappropriate or excessively capital-intensive, given the labor surplus conditions in these countries as mentioned earlier. Moreover, these technologies are seldom adapted to make better use of local factor endowments. Some foreign companies have introduced second-hand equipment and pass it off as "labor-intensive, appropriate technology" (Chantramonklasri, 1994, p.49). These are usually machines that have become less efficient and have to be replaced in the supplier's country. The unfortunate impact on the host country or on the technology buyer is usually high maintenance costs, which offset the benefits gained from increased employment, and cheaper equipment costs.

The shortage of skilled labor is regarded as another major problem to the effective transfer and absorption of technology. The various skills training programs are unable to cope with the needs of the extremely large labor pool and the requirements of industrial firms (McLeod, 1988). Moreover, the educational system has thus far failed to keep up with the demands for more science-based, technically grounded, and relevant educational programs. The potential for technological absorption and control is related to the availability of qualified and experienced technical personnel. Although such individuals are to be found in most Thai research institutions, the report showed that such institutions have been unable to adequately supply the requirements of private industry (Khantthachai, 1987).

The limited utilization of R&D capability is isolated and disconnected in the real world. The researchers carry out technology activity in an improper manner. Even though there is an attempt to commence R&D programs, they are often unable to have an impact on the industry. A well-known argument often used to explain this ineffectiveness is that industrial firms have a tendency to utilize proven technologies from foreign sources, thus limiting the demand for local scientific and technological capabilities (Ng, 1986). This argument

remains highly questionable because it presumes that those "centers of excellence" have available the kinds of products which are relevant to the needs of their potential clients. As noted by an empirical study, "industrial firms tend to doubt the ability and effectiveness of universities and public technical institutes to solve practical industrial problems" (TDRI, 1992a, p. 85).

According to some statistics in the country report, advanced countries have a higher level of national investment in R&D. For example, Japan spent about 3 percent of its GNP and newly-industrialized countries like Korea, Taiwan and Singapore spent about 1 to 2 percent of their GNP in R&D (TDRI, 1992). The R&D investment in Thailand in recent years was less than 0.2 percent of GNP. It shows that Thailand is less interested in R&D investment which, in turn, causes the country to develop slowly.

Another problem is that many firms can draw sources of technology from foreign sources and that lead the firms to feel that there is no need to invest in R&D. Since the firms receive efficient technology, they then assume that everything will be fine. They tend to remain passive until the new production system has arrived and engage in limited technological training. They remain unaware of industrial firm's need to develop in-house technology.

For the reasons mentioned above, Thailand is not ready for the transfer of technology and therefore remains less competitive. Moreover, there are many new market economies with lower wages and more resources. There are also many developed countries, which have researched new production techniques and are able to make new products. This makes Thailand even less competitive and could become a serious problem in the future. It is thus highly possible that without substantial efforts to develop better capability in science and technology and to support industrial development, Thailand may face a major economic and social crisis in the near future.

Furthermore, transfer capabilities and motivation of the enterprises supplying industrial technology have an important bearing upon the effectiveness and efficiency of technology transfers. The competence of the transfer agents, including their ability to design an easily transferable technology package, is an important factor. The supplier enterprise and its transfer package report a combination of documentation, training and technical assistance. Motivation of the technology supplier depends in large part on the transfer mode and the potential return the supplier hopes to realize by an effective and efficient transplant.

Conceptual Framework

The transfer of technology between developing and developed countries has been happening for long time. It has caused the technology gap to get wider and wider. There are a few countries in Asia, which have crossed the gap and developed a national technology of their own. The essential question is why. Why has so little worthwhile know-how flowed to developing countries? The researchers believe that there is no one answer to the question. There are some studies focusing on the success and failure of some factories. Some failures in the transfer of technology result from poor negotiating technique and poor contract drafting, poor English language, and poor skilled-labor. Some successes occur because the negotiators knew what they wanted, knew how to bargain for it, and knew how to draft the necessary contract.

This paper studies the effectiveness of transfer technology for Thai workers. The technology transfer may be described as the "diffusion of the complex bundle of knowledge which surrounds a level and type of technology" (Charles and Howells, 1992, p.3). In this case, the technology transfer refers to the movement or passing-on of technology or know-how from one party to another via the use of investment or agreements for cooperation between two or more parties in the manufacturing industry in Thailand.

This study uses the above definition and views that technology can be transferred and various distinct mechanisms for effecting the transfer. This paper will be beneficial to international human resource managers, policy-makers, Thai workers, and educators. After they read the paper, they will find that the research studies focused on the effectiveness of technology transfer for Thai workers. They will learn that the technology transfer is a main key for Thai development and sustainability. It will assist Thai manufactures to know their problems and learn about technology transfer. They will know the trend to produce Thai workers to replace the workers from abroad and determine the criteria for bring in foreign workers.

The questionnaires were divided into four groups. They were human resource managers/entrepreneurs, Thai workers, foreign workers, and institution administrators. The questions were divided into two sections in each group. They were general questions such as position, responsibility, gender, and so on. The second section was about how the technology had been transferred, what type of training were employed, how long they worked in the manufacture, who trained Thai workers. Some of the questions for investigation are:

- In using which technologies are Thai workers' skills are not as good as they should be?
- Does the manufacturer provide training to Thai workers?
- How does the manufacturer develop Thai workers after they have transferred the technology?
- What are the advantages and disadvantages of hiring foreign workers?
- How can the government assist with the transfer of technology?

This, in turn, will assist Thai manufacturers to know their problems, and to learn about the transfer of technology

Research Methodology

Methodology

This paper is based on a multi-method component and design research methodology. Under this design, the combination of components occurs since the earlier stage launched the literature review, data collection, data interpretation, and analysis. Many books, journals, and other documents on the transfer of technology were reviewed. The sources were Thai human resource and technology journals, organizational development journals, and the Internet.

The questionnaires were discussed by the team researchers many times in order to clearly define and make sure that all details were covered. The questionnaires were pre-tested and modified.

In this study, we utilized stratification in order to have a variety of sampling in four groups. Further, we showed the questionnaires to committee members at the BOI for comments and suggestions. The advisory committee for the study determined that the most knowledgeable and most likely to provide insights into the subject under investigation would be: Foreign workers (150 persons), Thai workers (100 persons), senior administrators in schools (50 persons), and entrepreneurs or human resource managers (50 persons). The people were drawn from five provinces: Rayong province, Ayuttaya province, Chonburi province, Lumpun province, and Songkla province. The manufacturers were selected from a list of participants who were willing to participate in the research.

While the questionnaires were being distributed, key workers were interviewed because they were the most knowledgeable about the topics being researched, could provide a current perspective, and were able and willing to communicate with the research team members.

Research Question/Proposition

What is the effectiveness of technology transfer for Thai workers?

Research Limitation

The research is to study a technique the effectiveness of technology transfer for Thai workers.

Words of Definition

Transfer of technology is defined as a knowledge transfer from supplier (usually a developed country) to the receiver (a developing country).

Foreign workers are defined as foreigners who are granted a work permit by the BOI to work in Thailand.

Thai workers are defined as Thai workers who work in the manufacturing sector

Human resource managers are defined as the manager who is responsible for personnel management.

Institution is defined as Thai higher education institution.

Entrepreneur is defined as one who organizes a business.

Results and Findings

The questionnaires were distributed to four groups. They were 50 HR managers/entrepreneurs, 100 Thai workers, 150 foreign workers and 50 institution administrators. The research took about one and a half months in the field. The study included twenty-four manufacturers from four regions of Thailand and ten institutions. This section will discuss some important issues on the effectiveness of technology transfer for Thai workers.

The first set of questionnaires was distributed to HR managers/entrepreneurs. Every factory had hired a foreign worker with a work permit. Most of them came from Japan, China, Taiwan, Korea, Philippines, Malaysia, Singapore, Pakistan, and India. A few of them came from the United States, Canada, Britain, France, Italy, and Australia. These people hold positions of senior and middle managers and technicians. Examples of positions are mechanical manager, marketing manager, managing director, quality audit manager, shift supervisor, maintenance supervisor, R&D manager, production manager, tooling design specialist, process development manager, and information system manager. Many managers stated that some of these workers have transferred technology and increased the experience and knowledge of Thai workers. They also mentioned that there is an organizational policy to reinforce the transfer of technology in more than 76% of the companies.

The reasons are that Thai workers are cheaper and are able to do the job. The four types of transfer of technology are shown in Table 1 and the method of transfer of technology in Table 2 as shown below.

Table 1. *Type of Transfer of Technology*

Type of the Transfer of Technology	Percent
Mechanism	80.9%
Production	70.2%
Management	51.1%
Marketing	31.9%

Table 2. *Method of Transfer of Technology*

Method of Transfer of Technology	Percent
On the job training	89.4%
In-house training	76.6%
Training abroad	61.7%
Training in Thailand	51.1%

After transfer of technology has occurred, 76.6% of the respondents are willing to replace foreign workers in middle management positions such as plant manager, control manager, mechanical technician, safety and environment manager, and production technician. The factory also has a plan to continuously develop Thai labors in order to keep up with the new technology. They will provide coaching, in-house training, and simulations, and will also require self-evaluations and portfolios.

In addition, the respondents also provided what they believe to be the advantages and disadvantages of hiring foreign workers. The advantages include: technology transfer to Thais, exchange of culture, improving communication with their mother company, providing new technology and knowledge, experience and specialist knowledge, and receiving suggestions and recommendations. The disadvantages include: high cost, cultural conflict, language barrier, little transfer of technology, difficulty in obtaining Thai visa, and conceited opinions about Thai people.

On the government side, responses indicated a need for some assistance from the Thai government are to encourage Thai people to learn foreign languages, train Thai people to understand foreign cultures, improve the school curriculum including teaching and learning, send students for training, reinforce the law requiring foreign labor to help Thai society, coordinate between the government and industry, provide training packages, establish a center providing advice about experts in technology within Thailand and abroad.

The second set of questionnaires was distributed to foreign workers. The responses from the survey showed that the average age of the foreign workers is 41 years old, the average years of experience is 14 years and the average salary is 80,080 baht ($1,777 per month). The respondents were 98% male and 2% female. Their education details appear in Table 3

Table 3. *Level of Education of Foreign Workers in Thailand*

Level of Education	Percent
Less than secondary school	15%
Vocational school	32.2%
Bachelor Degree	44.9%
Higher than Bachelor Degree	7.2%

The foreign workers were 79.9% Asian, 11.4% European and 6.7% American. Most Asians came From Japan. Others came from Taiwan, China, Korea, Malaysia, Singapore, and India. Their positions are president, vice president, manager, assistance manager, and technician. Their main jobs include quality control, quality audit, organizational management, safety, production design, contacting customers, supervise workers, product marketing, investment planning, coordination, and maintenance. These people came to Thailand because their mother companies sent them to help Thai team members improve their skill and learning. This has created an opportunity for training and transfer of technology to Thai workers. However, there are some difficulties. For example, the language barrier, ineffective communication, and cultural conflict. Others problems include Thai staff quitting their job after training in order to get a better job, Thai workers not paying attention to what has been taught, and foreign and Thai workers sometimes misunderstanding each other.

The third set of questionnaires was distributed to Thai workers. The survey showed that the Average age of Thai workers is 31 years old, the average years of experience are 5, and the average salary is 20,262 baht ($406 per month). The responses were 83% male and 17% female. Their education details are shown in Table 4.

Table 4. *Level of Education of Thai Workers*

Level of Education	Percent
Less than secondary school	17.9%
Vocational school	21.1%
Bachelor degree	50.0%
Master degree	6.3%

The respondents hold positions as middle managers, for instance, head of technicians, and Directors of production According to the respondents, Thai people for several reasons can hold these positions. Thai people have more experience, work hard, are responsible, and are willing to do the job, like a challenging job, and always develop themselves. In addition, many respondents stated that Thai workers have the same opportunity to progress in their job as foreign workers do. They work and coordinate with foreign staff and learn techniques from them. The Thai respondents all stated that they attended a variety of training courses such as for industrial orientation, professional management, internal auditing, foreign languages, manufacturing, ISO 9000, ISO 14000, safety and energy -saving, and time management. The technique for effective transfer of technology is to work closely with foreign workers, practice by yourself, do tests, coordinate projects, train on the job, and do training abroad or in professional conferences.

The fourth set of questionnaires was distributed to the institutional administrators. Almost all (95%) of the respondents are from public institutions. Their courses are in the fields of engineering, food technology, industrial technology, ceramics, computers, economics, food science, accounting, marketing, hotels and tourism.

The institution's policy is to produce graduates who can think, work, be responsible, and Communicate, including using a foreign language. A question related to whether the institutions knew about the need for the number of Thai workers in the manufacturing sector. Many of them didn't know (52%). The question asked further about how they knew about the needs of factories. The result shows that the institutions knew about the need from provincial labor council's (5.45), announcements by the factories (13.5%), and from the BOI (5.4%). There was no answer from 75.7%.

In order to help manufacturers find qualified workers; all institutions have a counseling unit where they work closely with students and manufactures. The name of the unit differs: counseling department, counseling unit, career and development section, careers information section. Their jobs are to provide counseling, help students find jobs, coordinate with the Ministry of Education, and provide career information.

The respondents also state that students in the institutions have an opportunity to learn and practice their skills in a factory in order to increase their experience, and sometimes attend training courses which last from 2 months up to 2-3 years. The techniques to train students in Thailand are summarized in Table 5.

Table 5. *Techniques to Train Students in the Institutions*

Techniques to Train Students	Percent
On the job training	76%
Learn from foreign workers	49%
Invite foreign workers to teach in school	35%
Learning through documentation	15%

Some problems for Thai institutions producing graduates are: unclear national policies for higher education, a lack of personnel and equipment, inexperienced teachers, insufficient budget, lack of private coordination, lack of language and culture skills, outdated curriculum, insufficient activities for students to participate in the field.

The final question was to ask whether the government can help to improve the Transfer of technology to Thai workers. The responses were to determine how to transfer the technology, encourage more development of technology , provide training and more education, provide scholarships for further education, coaching and mentoring lectures and participation, a clearer policy on the transfer of technology, improve quality of education. Furthermore, the responses mentioned that there should be coordination with foreign investors, a focus on specialists, support for the exchange of technology among the industries, a transfer of technology center, enough budget, a new curriculum with an emphasis on foreign languages, more foreign investors in Thailand, more seminars, workshops, conferences, and other activities that involve the transfer of technology.

Conclusion and Recommendation

In this paper, we analyzed the effectiveness of technology transfer. The findings show that the majority of foreign and Thai workers are male. Foreign workers hold positions of senior managers in the manufacturing

sector while Thai workers are junior managers. Foreign workers have an average experience of about 14 years while Thai workers have an average experience of about 5 years. This might be because the average age of foreign workers is much higher, 41 years, while the average age of Thai workers is only 31 years. The research displays that should distribute their new and advanced knowledge for Thai workers who have less experience. The technique mostly used by foreign workers for knowledge transfer is on-the-job-training.

The methods used for transferring technology include on the job training, in-house training, training abroad, and training in Thailand. This relates to engineering, production, management, and marketing. It shows that there are four main methods for the transfer of technology that most manufacturers in Thailand have implemented and found to work well. Manufacturers still feel that it is necessary to hire foreign workers because they would like to hire their own people to do their job. They feel that their people can do a better job and can be trusted more. In addition, there is the recognition that the Thai government and manufacturers play a major role in facilitating and supporting the process of technology transfer. The government is encouraged to support the process through the provision of required incentives, educational infrastructure and support institutions. It must be a strong collaboration between the manufacturers and the government for the transfer of technology to be successful.

Educational institutions offer courses that are out of date and not geared to keep up with the changes in technology. The responses from the manufacturers state that graduates can't do the work. However, the institutions have tried to help by providing practicum and have students do the actual work while in school. The equipment in schools for students to practice with is old. There is also a lack of qualified teachers. There is also a high turnover among skilled workers resulting in incomplete technology transfer to the local manufacturers. Consequently, the ability of Thai workers to absorb and adapt technology is weak.

New Knowledge to HRD

This research can contribute to the new knowledge in HRD by showing there is a growing awareness by manufacturers of the skills available to increase productivity and growth in industrial production. It shows the importance of educational and training opportunities to Thai workers so that they can improve their skills and compete in the world market. Education and training play an essential role in developing workers' skills. In addition, the government must be a strong supporter for the process of technology transfer.

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Impact of Technological Change on Human Resource Development Practices: A Study of Singapore-Based Companies

A.. Ahad Osman-Gani
Nanyang Technological University

Ronald L. Jacobs
The Ohio State University

Technological change is commonplace in contemporary organizations. How to prepare employees for technological change has increasingly become an issue for human resource development theory and practice. This study investigated the human resource development practices of organizations in Singapore, a nation that has been subject to many changes in order to stay competitive. The results show similar patterns of responses across business sectors, however some differences were found in the transport and communications sectors. On-the-job training was reported as the most frequently used training method to address organizational change needs. The discussion and recommendations focus on the need for improved change management approaches.

Keywords: Technology, Organizational Change, Singapore

Technology can be classified into three types: 1) product, 2) process, and management (Osman-Gani, 1996). Briefly, product technologies are when ideas are incorporated into a concrete object. Process technologies are the sequential steps used to produce a product or deliver a service. Management technologies are the actions taken to optimize resources to achieve business goals (Osman-Gani, 1991). Regardless of the type of technology, its appearance in organizations has definitively changed the nature of work (Connor et. al., 1996). Indeed, the greatest impact of technology has been suggested to be on the nature of work and the abilities of employees to meet the new requirements.

Responding to technological change ultimately places pressure on the costs of the organizations (Nankervis, Compton, & McCarthy, 1999). However, no research has been found to determine to what extent the effect that technology has had on human resource development practices, particularly in the Asian region. For instance, Singapore, being resource-scarce, naturally needs to invest in its people on a continuing basis. The following research questions were formulated to guide the study:

1. What are the major technological changes experienced by Singapore companies during the last three years?
2. What is the impact of technological changes on Training and Development practices of Singapore companies?
3. What is the nature of the resistance to technological changes experienced by Singapore companies?
4. What is the nature of differences among companies from various industrial sectors in using the T&D strategies to cope with the technological changes?

Methodology

The sampling frame of this study was from the 1999 "Singapore 1000" database. It was used because technological changes are more likely to impact dynamic organizations. A sample of 908 companies was selected randomly for each stratum, according to their representation in the sampling frame. The sample was selected using a proportionate stratified random sampling method with the strata being the five primary business sectors namely, manufacturing, construction, financial and business, transport and communication and commerce. Respondents were either HR managers or general managers. Preliminary interviews were conducted on a sample of 30 HR managers drawn from various companies. Interview findings were incorporated into the questionnaire design, which encompassed specific technological changes and the possible impact faced by companies on the various HR issues. Research findings from existing literature were also integrated. The questions were carefully worded to avoid misinterpretation. Technical terms were also explained.

The questionnaire layout was formatted in a logical and aesthetically pleasing manner to ensure higher response

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rate. The structured questionnaire was designed using five-point Likert-type response scale and some categorical items provided for choosing frequency of use. A cover letter was attached to the questionnaire describing the purpose of the study with anonymity and confidentiality emphasized to increase the response rate. No identification such as company name or email address was requested from respondents. In order to verify the reliability and validity of the questionnaire, test and retest methods were used. The questionnaire was administered twice to a sample group within two months to check for accuracy and consistency. A panel of experts comprising of senior managers of companies and professors of Nanyang Business School, were consulted to check for adequacy and relevancy of the questionnaire items. The questionnaires were mailed to the HR managers and general managers of the sample organizations. Managers were requested to complete and return the questionnaires within two weeks either by mail or fax. Due to the initial low response rate, a second mailing was carried out, and follow-up calls were made.

Results

A total of 147 responses could be used for the analysis after screening the returned questionnaires for their completeness. The responses had the following demographic breakdowns: 51 percent of the respondents were from local companies and 49 percent were from foreign companies; 52 percent were from the SMEs and 48 percent were from large companies; 46 percent of the respondents were from the Financial and Business Services sectors, 21 percent were from the Manufacturing sector, 14 percent were from the Commerce sector, seven percent were from the Transport and Communication sectors, six percent were from the Construction sector and seven percent were from the remaining sectors. Finally, 70 percent of the respondents had business experience of more than ten years.

What are the major changes experienced by Singapore companies during the last three years? The results showed that in terms of information technology, in 1997 the introduction of new hardware affected approximately one-third of the companies. In 1998 and 1999, approximately one-half of the companies reported introducing new software. In terms of product technology, in 1997, 1998, and 1999, approximately one third of the companies introduced electronic telecommunications equipment. In terms of process and management technology, total quality management and accounting tools were the most frequently introduced areas of technology for all three years.

What is the impact of technological changes on human resource development practices of Singapore companies? The results showed that on-the-job training was the highest ranked training method used by Singapore companies to cope with technological change. The results also showed that most companies during this time used external consultants and vendors to provide human resource development expertise. The average length of time for the training was from one to three days in length. Surveys and questionnaires were the most frequently used training evaluation method used.

What is the nature of the resistance to technological changes experienced by Singapore companies? The results showed that psychological and emotional attitudes were the most frequent type of resistance encountered as a result of introducing new technology. The human resource development strategies used to reduce resistance to change. Communication and education, employee participation and involvement, and facilitation and support were the most frequently used human resource development strategies used.

What is the nature of differences among companies from various industrial sectors in using the HRD strategies to cope with the technological changes? Table 1 shows that overseas training was the most frequently used training method ($p < .01$) and that the difference was found among companies in the transport and communications sector. Table 2 shows that there were no differences across the business sectors in terms of the nature of training providers used by companies. Table 3 shows that there were no differences in the training duration across business sectors. Table 4 shows that trainer feedback was significant in terms of the training methods used by companies in different business sectors. Again, the difference was found in the transport and communications business sector.

Discussion and Conclusions

Changes in information technology were most frequently experienced technological change in Singapore organizations. Recruitment and selection did not play an important role in helping a company cope with technological changes. Singapore companies were using other means such as training and development to cope with technological change. Employee training helped companies cope with technological change. However, tight training budgets constrained the type and frequency of training programs. Employees can be motivated to accept changes through the use of annual increment, medical benefits and training opportunities. Motivational strategies enabled employees to face technological changes more positively. The role of planning change lied mainly in the top management.

Companies can consider using contract workers on a temporary basis of six months to relieve current workload. This is because workers need not be trained since they can take over simple tasks and are relatively more cost-effective. This allows employees to focus on critical job aspects that are technology dependent while leaving non-critical work to contract workers. With the increasing usage of the Internet by Singaporeans, the applicant pool will increase and thus companies should consider the use of e-recruitment. This can be achieved by setting up a company website or by using e-recruitment services such as RecruitAsia.

Training can be used as an effective tool for motivating and retaining the employees. For example, scheduling an employee to a one-year overseas-training program can help to boost morale. The use of stock options can be useful in companies that faced many technological changes, which demands the full attention and energy of employees to innovate in order to survive. This increases the employee's commitment to the company and motivates him to work harder for mutual benefits. Non-monetary, innovative and valuable incentives could be used more frequently to enhance employee motivation. For example, a point-scheme based on work performance can be devised to replace overtime pay. Points accumulated can be redeemed for incentives such as free staff lunch and reduced working hours.

It is recommended that companies increase their training budgets to accommodate more training programs for employees. Training should be taken as an investment and not an expense. Training programs are needed to upgrade employee skills. Thus, there is a vital need for more resources to be allocated to training. Training programs should be structured to include technical training as well as management training. Of equal importance is the need for good change management and communication skills to ensure successful changes. Companies should continue using on-the-job training as emphasized by the Singapore government in their recent OJT21 initiative and seminars/workshops. Computer-based training should also be considered to enable employees familiarize themselves with computer-related and Internet applications. However, the use of specific training methods would depend on individual company's needs.

Outsourcing of non-proprietary training could be a good strategy as the management can focus on more important issues and redirect the training programs to people who have the expertise and knowledge about the change. This is especially so with the increase in information technology. Shorter training duration allows company to adapt to new technological changes and this enables companies to gain an edge over their competitors. Thus, duration of training sessions should be appropriate to allow employees sufficient time to absorb new knowledge. Companies should conduct some form of training evaluation. This is because it would prove to be valuable to the HR personnel in shaping and improving the company's future training programs.

Recommendations

As this study sampled only 908 companies, future researchers could use a larger sample of companies to improve on representation. The study only covered technological change and its impact on HR strategies, hence, researchers may want to consider studying other types of changes, such as organizational changes. Reasons driving technological changes and the frequency of changes can be investigated to determine an appropriate period for companies to retrain workers to cope with new changes. Techniques such as cascade training might be used to address institutionalization issues (Jacobs & Russ-Efty, 2001). Other HR issues such as career development, performance appraisal and industrial relations can be explored into. Organization variables affected by technological changes such as organization structure, job design, authority, responsibility and communication patterns could also be included.

To obtain a more comprehensive and in-depth study, employees could also be included as respondents to show the impact of various HR strategies on different interest groups. The length of business experience can also be incorporated to see if there are significant differences among companies of different years of experience in their use of human resource strategies to cope with technological change. Analysis between government-linked and private companies, as well as between listed and non-listed companies can be conducted. A comparison between technology firms such as Internet and software companies and non-technology firms could be examined for differences in HR strategies with regards to technological changes.

Future research should focus on more detailed interviews and focus groups to obtain more comprehensive views of the current situation. Specific case studies could be conducted on representative companies to gain an in-depth knowledge of technological changes' impact on HR within each company. The study may be replicated in other countries with an additional variable, national culture considered. It would be a valuable finding to prove that national culture varies from country to country hence enabling an Asian model depicting the impact of technological changes on HR strategies to be developed.

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Table 1. *Analysis of Variance on the use of Training Methods by Business Sector*

Frequency of use of Training Methods	Business Sectors																		F- Value	Signi-ficance
	Manufacturing			Construction			Financial and Business Services			Transport & Communication			Commerce			Others #				
	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD		
Classroom/ Lectures	21	3.67	1.02	6	2.83	1.17	43	3.42	1.42	8	4.25	0.71	13	3.00	1.35	7	3.29	1.70	1.34	0.26
Seminars / workshops	18	3.89	1.08	6	3.50	0.84	44	3.89	1.13	8	4.00	0.53	14	3.71	0.83	7	4.29	0.76	0.50	0.78
Games and simulation	16	2.13	1.09	6	2.33	1.51	38	1.97	1.15	8	2.63	1.19	13	1.38	0.65	6	2.83	1.33	2.05	0.08
Small group discussions	18	2.89	1.02	6	2.50	1.38	41	2.95	1.20	8	3.00	1.20	13	2.92	1.12	7	3.29	1.50	0.29	0.92
Written tutorials	16	1.75	0.68	6	1.67	1.03	39	1.79	0.92	8	1.75	0.46	12	1.67	0.89	6	1.83	1.33	0.06	1.00
Audio and video tapes	18	2.61	1.04	6	2.50	1.38	38	2.26	1.35	8	3.25	1.28	13	2.15	1.28	7	3.29	1.70	1.49	0.20
Computer-based training	18	3.00	1.24	6	4.00	0.63	40	2.90	1.19	8	3.13	1.36	13	2.31	1.18	6	3.17	1.17	1.79	0.12
On-the-job training	20	3.95	0.94	6	4.17	0.98	43	4.14	1.08	8	4.38	0.52	13	4.38	0.77	8	4.00	0.76	0.46	0.80
Self-instructional materials	17	2.53	1.23	6	2.17	1.60	42	3.02	1.26	8	2.75	1.28	14	3.36	1.22	6	3.33	1.86	1.20	0.31
Overseas training	19	2.89	0.94	6	2.50	1.38	37	2.16	1.38	8	3.63	0.52	13	1.92	1.19	6	3.50	1.64	3.61*	0.01

* *1 = Least Frequently Used .... ..5 = Most Frequently Used*

\# Includes companies from the healthcare, theatre and performing arts, IT and printing services.

* *significant at ≤ 0.05*

Table 2. *Analysis of Variance on the use of Training Providers by Business Sector*

Frequency of use of Training Providers	Business Sectors																		F-Value	Signi-ficance
	Manufacturing			Construction			Financial and Business Services			Transport & Communication			Commerce			Others #				
	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD		
External consultants / vendors	20	3.35	1.14	6	4.00	0.63	42	3.69	1.20	8	3.63	1.41	11	3.64	1.29	7	4.14	0.69	0.64	0.67
Human Resource professionals	18	2.56	1.20	6	2.33	0.82	41	2.07	1.19	8	2.00	1.07	13	2.77	1.30	7	3.29	1.11	1.92	0.10
Department / functional managers	19	2.79	0.85	6	3.67	1.03	43	3.30	1.30	8	3.38	0.74	14	3.57	1.22	7	3.29	1.38	0.99	0.43
Academic professionals	19	1.84	1.07	6	2.33	0.82	42	2.29	1.24	8	2.25	1.04	13	2.08	1.04	6	2.67	1.63	0.64	0.67

Table 3. *Analysis of Variance on the use of Training Duration by Business Sector*

Frequency of use of Training Duration	Business Sectors																		F- Value	Signi-ficance
	Manufacturing			Construction			Financial and Business Services			Transport & Communication			Commerce			Others #				
	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	D		
Less than 1 day	17	3.24	1.35	4	3.00	1.63	38	3.16	1.44	6	2.33	1.37	9	2.89	1.45	6	2.50	1.52	0.59	0.70
1 day to less than 3 days	18	3.78	1.00	6	3.83	1.17	37	4.05	1.08	7	4.14	0.90	12	3.75	1.22	7	4.14	0.69	0.36	0.87
3 days to less than 1 week	17	3.06	1.03	4	2.50	1.00	36	3.00	1.01	7	3.57	0.98	11	3.00	1.18	6	3.33	1.63	0.62	0.68
1 week to less than 2 week	17	2.24	1.30	4	2.50	1.29	36	1.92	1.13	6	2.67	0.82	10	2.10	1.20	5	2.60	1.52	0.73	0.60
2 weeks to less than 2 months	17	2.00	1.41	4	2.00	0.82	34	1.53	0.71	6	1.50	0.84	11	1.73	1.01	4	1.25	0.50	0.83	0.52
2 months to less than 6 months	17	1.76	1.09	4	1.50	1.00	34	1.41	0.82	6	1.33	0.52	10	1.30	0.48	4	1.25	0.50	0.62	0.68
6 months and above	16	1.69	0.95	4	1.50	1.00	31	1.29	0.53	6	1.00	0.00	9	1.11	0.33	4	1.00	0.00	1.85	0.11

* *1 = Least Frequently Used. .....5 = Most Frequently Used*

\# Includes companies from the healthcare, theatre and performing arts, IT and printing services.

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Table 4. *Analysis of Variance on the use of Training Evaluation Methods by Business Sectors*

Frequency of Training Evaluation Methods	Business Sectors																		F - Value	Signi-ficance
	Manufacturing			Construction			Financial and Business services			Transport & Communication			Commerce			Others #				
	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD	N	Mean*	SD		
Surveys/questionnaires	14	4.07	1.14	6	4.17	0.98	19	3.89	1.15	6	4.17	1.17	7	3.00	1.15	4	4.50	0.58	1.35	0.26
Supervisor feedback	13	3.38	1.19	6	3.83	0.75	18	3.61	1.09	5	3.60	0.55	7	4.00	0.58	4	4.50	0.58	1.01	0.42
Administration of tests	14	2.57	1.40	4	1.75	0.50	16	1.88	0.96	6	2.83	1.17	7	2.29	0.95	3	2.00	1.00	1.13	0.36
Trainer feedback	12	2.83	0.94	6	3.50	1.52	17	2.82	1.07	6	4.17	0.41	7	3.00	1.00	4	4.00	1.15	2.37	0.05

* *1 = Least Frequently Used .....5 = Most Frequently Used*

Includes companies from the healthcare, theatre and performing arts, IT and printing services.

Validating a More-Dimensional Conception of Self-Directed Learning

Gerald A. Straka
Cornelia Schaefer
Bremen University, Germany

In theory and practice of human resource development self-directed learning is receiving increasing attention. An indicator is the large body of research in adult education and training. However, there are concerns linked with the theoretical underpinnings of the concept and the instrumentation of self-directed learning in this field. This was the reason to develop and validate a more-dimensional conception which defines self-directed learning as a process in which a person has contentual and procedural interests, is using learning (acquiring, sequencing, organizing) and control (concentration, monitoring, reflection, regulation) strategies, accompanied with emotions (joy, anger, boredom)

Keywords: Self-Directed Learning, Motivation and Emotion, Control Strategies

"Lean production", "re-engineering", "learning organization", and "knowledge management" occupy a large area in theory and practice of human resource development. These considerations have led to more competence being shifted back to the place where a piece of work is machined or a service provided. At the same time, they imply and indeed demand, though not explicitly, a continuing process of learning during the whole working life. In this context, self-directed learning is receiving growing importance as a complement to other forms of further and in-service training around the globe.

Problem Statement

In the meantime, a lot of research has been going on in the field of self-directed learning, especially in adult education. Indicators for that are: the 16th International Self-Directed Learning Symposium held in Boynton Beach, Florida/USA in 2002; the "6ème Colloque Européen sur l'Autoformation" (self-formation) held in Montpellier/France in 2001; and the Second World Conference on Self-Directed Learning which took place in Paris/France in 2000. In these arenas, Knowles' conception of self-directed learning, the Oddi Continuing Learning Inventory (OCLI) (Oddi 1984) and particularly the Self-Directed Learning Readiness Scale (SDLRS) (Guglielmino 1977) are widely used in business and industry.

Knowles defines self-directed learning "in its broadest meaning (...) as a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (Knowles 1975, 18). However, this view is not followed up by more extensive theoretical derivations or systematic descriptions of what 'initiative' means and of which activities, from establishing the need to learn up to evaluating the learning outcomes, may take place. Conceptual and empirical evaluations of the OCLI and the SDLRS raised concerns about (a) how self-direction was defined (Candy 1991), (b) the theoretical underpinnings of the concepts (i.e. weak relations to results of cognitive sciences, unidimensionality) (Brockett and Hiemstra 1991), and (c) the quality of the factor solutions (i.e. Straka 1996, Straka and Hinz 1996). This critique was the occasion to re-conceptualize self-directed learning to refer explicitly to validated concepts from the field cognitive learning strategy research, to include different dimensions in the model, and to investigate the impact of selected perceived environmental conditions on this type of learning.

Theoretical Framework

During her/his lifetime, the individual interacts with her/his socio-culturally shaped environment. The individual enters this process with his/her *internal conditions*, like abilities, skills, and motives. From the perspective of the individual – the focus of this conception – the environment includes supervisors, colleagues, technical equipment, etc. subsumed under *environmental conditions*, and it is the individual's behavior which maintains this interaction made possible by her/his internal conditions (Gagné 1973). Examples for such activities are *viewing* a picture, *comprehending* a statement, *handling* a workpiece. With words such as "viewing", "comprehending", "handling" we are – albeit vaguely – describing *behavior*. In this context behavior is directed at something: a picture, statement, work

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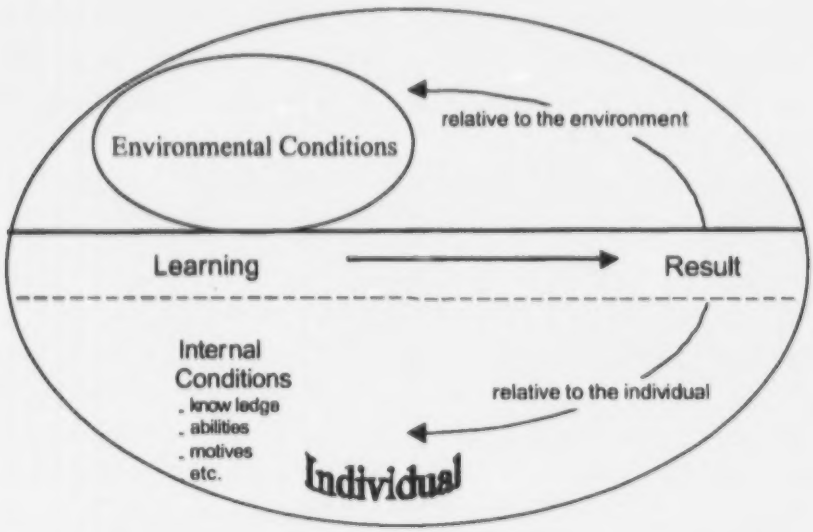
piece. From a cognitive perspective this something means *information* generated by the individual's (cognitive) behavior on the basis of her/his internal conditions and/or perceived signs or symbols from the environment.

When asked why an individual realizes, maintains, discontinues or avoids behavior in a particular way or which reasons are behind the behavior (conscious or unconscious), then we are dealing with the motivation side of the individual-environment relation. *Motivation* embraces that dimension which relates behavior to something (e.g. content), which aligns it (turning to or turning away) which associates a certain strength and intensity. There is still another dimension being part of the interaction. It is the *emotion* embracing the subjective experience from an affective and non-rational angle, which can be pleasant or unpleasant, connected with impressions such as joy or anger, or to physical processes such as sweating, shuddering or accompanied by expressional behavior such as facial expressions or gestures (Pekrun and Schiefele 1996, Boekhaerts 1999).

All four dimensions presuppose and necessitate each other. They do not exist separately by themselves, but instead only come into being through mutual action, that is to say they generate each other, which however does not mean that in different phases during the course of an event, one or other of the dimensions can be at the forefront (Becker, Oldenbürger and Piehl 1987). Example: A person is so irritated that she retains nothing when reading a text she considers very important and interesting. After a while her irritation subsides and she reads the text attentively; she compares what she has read with what she already knows, sees here and there additions to her previous knowledge and is pleased at having learnt something new. This does not surprise her, however, for she knows that she easily understands and retains things that interest her.

The individuals interaction with socio-culturally shaped environmental conditions result in consequences relating to the environment and/or the individual (cf. Fig. 1):

Figure 1. Learning



Environment-relative consequences arise for example out of the handling a workpiece or the giving potential information. *Individual-relative consequences* exist in the fact that her/his knowledge, her/his abilities etc. are permanently changed and therefore learning has taken place. Accordingly, *learning* has taken place when, and only when the *individual-relative* consequences of the interaction between behavior, information, motivation and emotion lead to a *permanent change in the internal conditions* of the acting individual.

A More-Dimensional Conception of Self-Directed-Learning

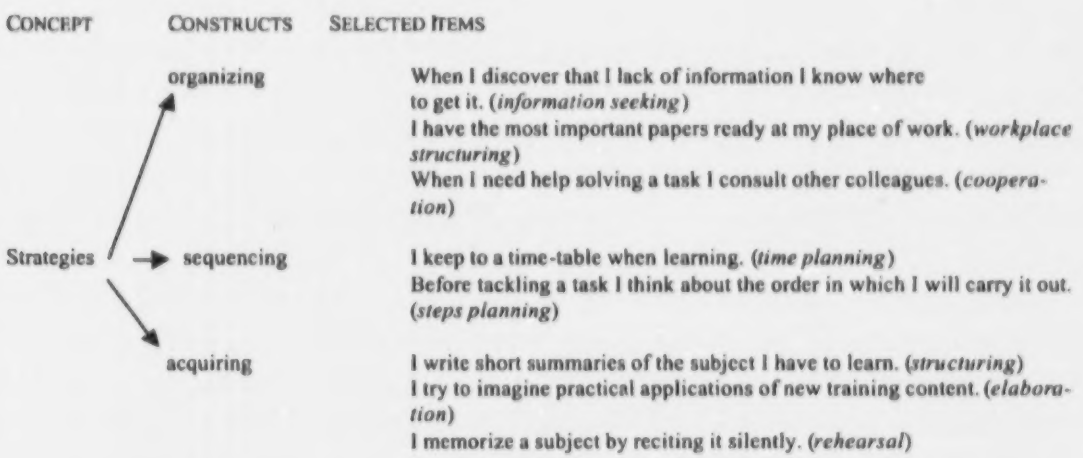
According to these considerations self-directed learning is a dynamic interplay between behavior, information, motivation and emotion under the experienced control of the learning person. Referring to cognitive theory the dimen-

sion "behavior" is differentiated into "learning" and "control strategies". The dimension "motivation" is modeled with the concept of "interest" (Krapp, 1999) and the dimension "emotion" subsumes specific types of emotions taking place during learning (Pekrun 1992). The differentiation of the dimensions "behavior", "motivation" and "emotion" into concepts, constructs and their operationalizations by the instrument used, will be given in the following paragraphs, referring to especially theoretical conceptualizations like those of Boekaerts (1999), Pintrich et al. (1991), Weinstein and Mayer (1986), and Zimmerman (2000).

Learning Strategies

When interacting with the environment, the following activities may be differentiated: the learner *structures* the generated information; s/he establishes similarities and differences between that which s/he already knows and that which s/he would like to learn (*elaboration*). If necessary, s/he will *repeat* in order to safeguard the permanence of what has been learned. Structuring, elaborating and rehearsal is learning behavior with which a person is *acquiring* that which is to be learned.

Figure 2. Constructs of the concept "learning strategies"

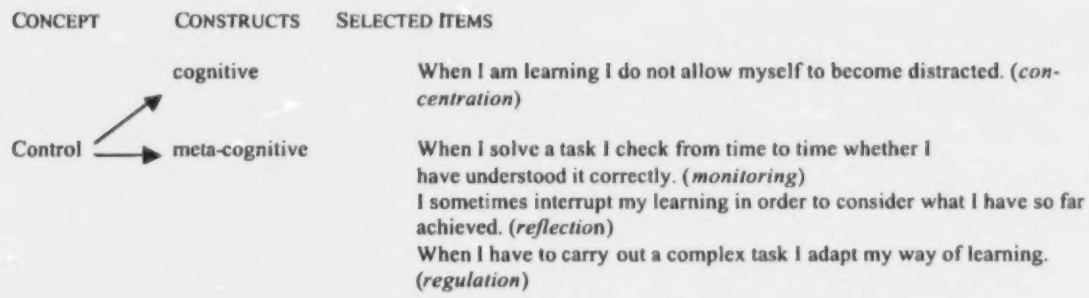

CONCEPT
CONSTRUCTS
SELECTED ITEMS
organizing
When I discover that I lack of information I know where to get it. (*information seeking*)
I have the most important papers ready at my place of work. (*workplace structuring*)
When I need help solving a task I consult other colleagues. (*cooperation*)
Strategies
sequencing
I keep to a time-table when learning. (*time planning*)
Before tackling a task I think about the order in which I will carry it out. (*steps planning*)
acquiring
I write short summaries of the subject I have to learn. (*structuring*)
I try to imagine practical applications of new training content. (*elaboration*)
I memorize a subject by reciting it silently. (*rehearsal*)

With self-directed learning, those activities which may occur before acquisition, are given a higher status. The learner is *sequencing* by *planning* her/his *steps* and *time* s/he would like to acquire that which is to be learned. Furthermore, s/he has to *seek information* needed for learning; whether the learner would like to *cooperate* with colleagues, as well as how s/he *structures* her/his place of work in a way that it promotes learning. Acquiring, sequencing and organizing are components or constructs of the concept *learning strategies*.

Control Strategies

These activities, subsumed to learning strategies are controlled either cognitively or metacognitively. *Concentration, monitoring, reflection and regulation* are in this context subsumed under the concept *control strategies*

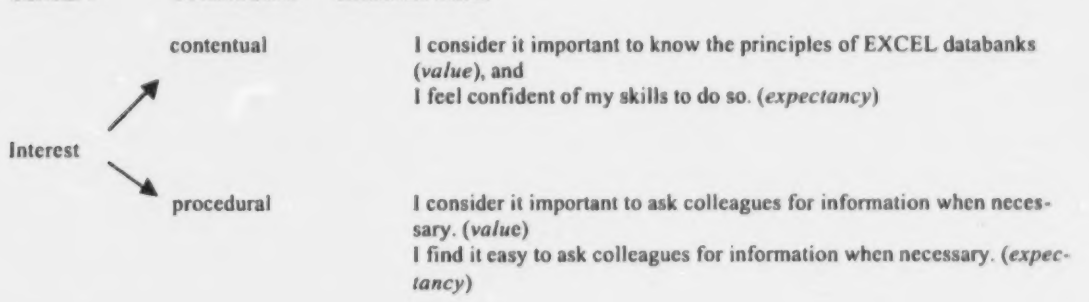
Figure 3. Constructs of the concept "control"


CONCEPT
CONSTRUCTS
SELECTED ITEMS
cognitive
When I am learning I do not allow myself to become distracted. (concentration)
Control
meta-cognitive
When I solve a task I check from time to time whether I have understood it correctly. (monitoring)
I sometimes interrupt my learning in order to consider what I have so far achieved. (reflection)
When I have to carry out a complex task I adapt my way of learning. (regulation)

Interests

The motivational dimension is focused on the concept of "interest", differentiated between contentual and procedural interest (Krapp 1999). The *contentual interest* is a combination of the value a person attaches to the content and the expectancy of being able to enter into a meaningful relationship with this content. As far as *procedural interest* is concerned, the individual value-expectancy-assessment refers to much the same thing regarding the above mentioned learning and control strategies.

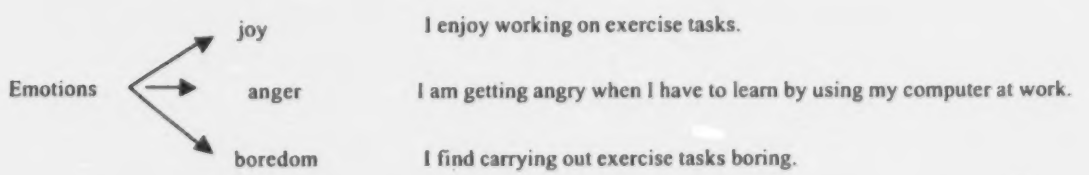
Figure 4. Constructs of the concept "interest"


CONCEPT
CONSTRUCTS
SELECTED ITEMS
contentual
I consider it important to know the principles of EXCEL databanks (value), and
I feel confident of my skills to do so. (expectancy)
Interest
procedural
I consider it important to ask colleagues for information when necessary. (value)
I find it easy to ask colleagues for information when necessary. (expectancy)

Emotions

In order to define the emotional dimension of the individual-environment-relationship, we will refer to the concept of the general *learning emotions* (Pekrun 1992, 1998), which embraces those emotions often found in learning situations like *joy*, *anger* and *boredom*

Figure 5. Constructs of the concept „emotions"



Perspectives Perceiving Environmental Conditions

Learning is on the one side, when all is said and done, the individual's business. However, on the other side it is embedded in environmental conditions. They are perceived by the individual according to his/her internal conditions which determine the aspects and ways of reconstructing and constructing the environmental conditions. According to Deci and Ryan, the experience of competence, autonomy and social relatedness are important conditions of self-determination (Deci and Ryan 1985, 1991, Straka 1997). The assumption is that these three types of experiences also contribute to self-direction in learning.

Related to the environmental conditions of the workplace, the three concepts are defined as follows:

- *Experiencing autonomy* at the place of work is when a person has the impression s/he has scope, that is to say that s/he is able to carry out her/his work tasks according to her/his own schedules.
- *Experiencing competence* at the place of work is when a person has the impression s/he carries out her/his work tasks competently as well as successfully and when s/he feels her/himself to be effective.
- *Experiencing social relatedness* at the place of work is felt by a person when her/his tasks are acknowledged by superiors and colleagues and s/he feels integrated in the works community.

Figure 6. Constructs of the concept "perceived workplace conditions"

CONCEPT	CONSTRUCTS	SELECTED ITEMS
	Perspectives:	On my place of work ...
Perceived Work Conditions	Autonomy	I am in a position to work according to my personal plans.
	Competence	I am a recognized member of the division.
	Social Relatedness - colleagues - superiors	I am excellently cooperating with my colleagues. (*colleagues*) At my place of work, my superior shows understanding for difficulties I have with new work tasks (*superiors*)

Research Questions

On the basis of these conceptual considerations and the postulated more-dimensionality of self-directed learning, the following questions are to be investigated:

1. Are there interrelations between emotions, interests, learning and control strategies?
2. Are there impacts of the workplace conditions, perceived under the perspectives of autonomy, competence and social relatedness, via the dimensions of interests and emotions on the learning and control strategies?

Methodology

To collect the necessary data the Motivated Self-Directed Learning in Business (MOSLIB) self-rating questionnaire was used. This modularized instrument consists of the concepts and constructs mentioned in the preceding paragraphs (Straka et al. 1996). It was validated in different settings in business and industry with principal components factor analyses and varimax rotations. Only items with single structure and a loading >0.40 are included in the instrument (cf. Nenniger et al. 1998).

The sample of the survey included 295 employees from a business administrative field of different small and medium sized enterprises in the Bremen area, of whom 20 % had a lower and 34 % an average secondary school education and 46 % a grammar-school education and above. 26 % were female and 41 % under 40 year of age. Availability and readiness to take part in the study were the criteria of "selection".

In order to get answers to the questions stated, structural models were validated with LISREL8. The input data were the correlation-matrices for the constructs of the structural models calculated on the basis of the factor-scores.

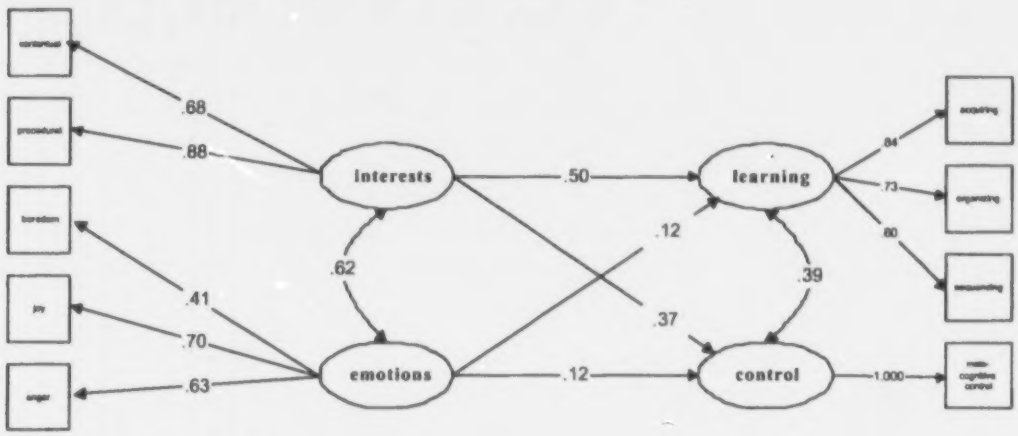
Results and Findings

The results of the LISREL-analyses according to the questions focusing on the more-dimensionality of self-directed learning and the impact of perceived aspects of the work condition will now be presented.

The More-Dimensionality Self-Directed Learning

The more-dimensionality of self-directed learning was investigated for the assumed relations between the concepts interests, emotions, strategies (cf. research question 1). It could be validated with the following structural model:

Figure 7. Relations between interests, emotions, learning and control strategies



GFI	=	0.96
AGFI	=	0.92
RMSEA	=	0.07

A relatively strong correlation between interests and emotions (.62) and a smaller one between strategies and control (.39) could be established. The relation between interests and emotions is in congruence with the Munich interest concept (Krapp 1999) which encompasses the aspects emotion, value, subject-relatedness. There is a fairly strong standardizes path-coefficient from interests to strategies (.50) and a smaller one to control (.37). The impact of emotions on strategies (.12) and control (.12) is minor and supporting the cognitive view of this conception of self-directed learning. The correlation between control and learning strategies (.39) expresses interrelation of theses concepts. In sum the model fits and the relations between these four concepts give a differentiated answer to research question one.

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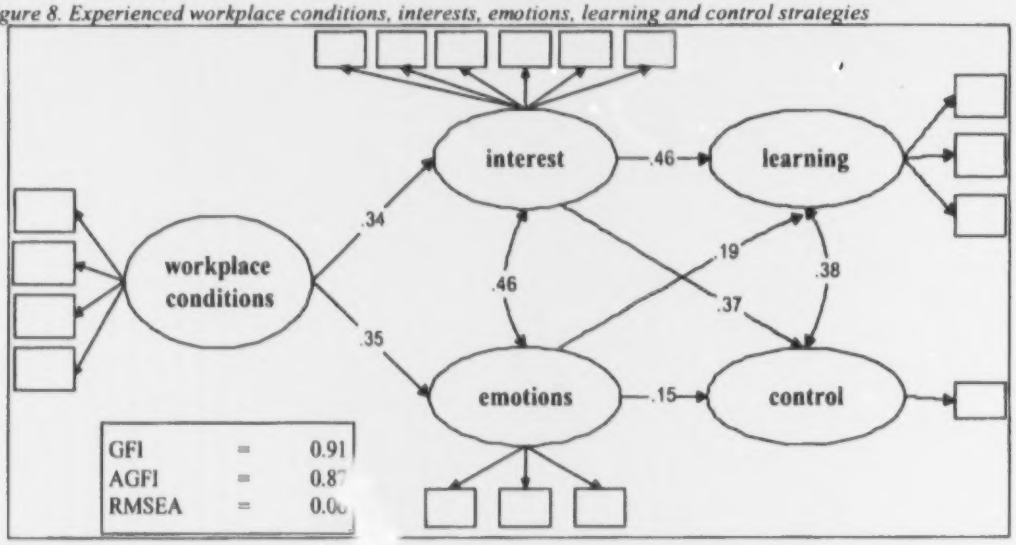
Impacts of Perceived Workplace Conditions on Selected Dimensions of Self-Directed Learning

The impact between perceived workplace conditions via interest and emotion on learning and control strategies, postulated with research question two, could be reconstructed with the following linear model:

Figure 8. Experienced workplace conditions, interests, emotions, learning and control strategies



There are paths from workplace cond ons, perceived under the perspectives of autonomy, competence and social relatedness to colleagues and superiors, to interests (.34) and emotions (.35). Experienced workplace conditions explain a little more than 11 % (e.g. 0.34^2=0.116) of the variance of emotions and of interests as well. It should be further noted that the inclusion of this concept of experienced workplace conditions has only a minor impact on the structure of the first model (cf. Fig. 7), which is a strong indicator for the stability of the postulated more-dimensionality of self-directed learning.

Conclusions, Recommendations

Based on the concepts and constructs introduced, their structural modeling and the empirical validation, *self-directed learning* will take place, if a person has contentual and procedural interests (dimension motivation), s/he is using learning (organizing, sequencing, acquiring) and control strategies (meta-cognitive) – both parts of the dimension behavior –, and s/he is driven by joy and not by anger or boredom (dimension emotion). The interrelations between these concepts may give persons in charge of human resource development some hints for interventions. First they may focus on the interrelated learning and control strategies by realizing explicit and implicit interventions. Explicit interventions include methods focusing on learning and control strategies. However, the application of them is up to responsibility of the person her/himself. Implicit interventions are focusing on the self-organized acquisition domain specific declarative and procedural knowledge with the assumption that by doing this, the person will acquire learning and control strategies simultaneously. Between these two poles, the "starting with guided reflection on one's own working and learning on the shop floor" may be an altemative (Cseh, Watkins & Marsick 2000).

A second point for intervention might be the interests from which strong paths go to learning and control strategies. According to the conceptualization of interests as a combinations of value and expectancy calculations human resource development people have to demonstrate persons the work-importance of the information and strategies to be acquired. The expectancy aspect could be supported in figuring out that the employee already mastered similar demands in her/his work biography.

The third angle for intervention consists of the arrangement of workplace conditions with high learning potentials. An important one might be the feedbacks used by colleagues and superiors in order to confirm continuously the competence of the employee.

How this Research Contributes to the New Knowledge in HRD

In research and especially in practice, self-direction in learning is focusing more on the "what" and far less on "how" to learn the "what". Referring to research findings from neighboring disciplines a more-dimensional model of self-directed learning was developed, validated and some ways perceiving workplace conditions supporting this type of learning have been identified. The findings demonstrate that learning new things in a self-directed manner requires a certain repertoire of learning and control strategies and interests, i.e. the main result is, that the often neglected "how"-question is equally important as the "what"-question, and that aspects of perceived workplace conditions have a distinct impact on some dimensions of self-directed learning.

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The Balance in Learning

Hanneke Koopmans
Universiteit Nyenrode

This study examines the way informal learning is organised at the workplace by employees. The balance between the input of the employee and the input of relevant actors, such as manager or colleagues will be clarified. Besides this balance this research also looks at the opinions on this balance of the organised learning, in order to clarify what employees consider optimal organisation of the learning. This research is a starting point for stimulating the organisation of informal learning at the workplace by employees.

Key-words: Self-organised Learning, Workplace Learning, Informal Learning.

Life long learning has received increased attention in the last few years. The continuous development of employees has become more and more important for organisations. The continuous learning of employees offer organisations an advantage in dealing with changes. Continuous learning is therefor one of the goals of the learning organisation (Drucker, 1995). Organisational learning takes place when employees generate their own knowledge in a reaction on the organisation and the environment (Baets, 2000). Organisations want their employees to be able to deal with the change that an organisation is confronted with.

The learning support for employees is usually organised by professionals, who organise a learning program. During the design of the program, different actors are more or less consulted about their ideas; but the responsibility of the program usually lies with the professional.

Most of these programs are aiming for the transfer of knowledge. Since the value of a program is the use of the learned knowledge at the workplace. This transfer is problematic and doesn't always take place. In American industries $100 billion is spend on training; according to a review on transfer of training. Actual 10%, of this $100 billion results in transfer to the job (Baldwin & Ford, 1988). In the Netherlands also 10% of learning in a program results in transfer on the job; according to an overview on learning within organisations in the Netherlands (Van der Zee, 1995).

It seems the learning programs don't offer the results we want. Informal learning and learning at the workplace are strong alternatives. They will be discussed in more detail later.

Baldwin and Ford are using a model for transfer. This model clarifies that the following elements influence transfer in a direct or indirect way:

- Trainee characteristics: ability, personality and motivation influence transfer in a direct and indirect way.
- Training design: principles of learning, sequencing and training content influence transfer in an indirect way.
- Work environment: support and opportunity to use influence transfer in a direct and indirect way.

The indirect way is via learning and retention to transfer. Trainee characteristics and work environment both influences transfer in a direct way. Whereas training design only influence transfer via learning and retention. Although the research is on transfer of training; the above findings can be integrated to aim at better results from informal learning.

We now look at the different elements that influence transfer. Although we take the three elements into account, we make certain choices. First of all the employee is the starting point of this research, the individual is the central focus. This means that we look upon informal learning from an individual perspective. We deal with training design in a more nuanced way. Since informal learning is the subject and not the more formal way of learning, we can't speak about the design of training. In this research the influence of the informal learning will be based on environmental elements. Where training design is more about moulding this environment.

Now starting to discuss the different elements of transfer, I begin with employees.

The programs are being designed for employees, for adults. These adults are hardly consulted during the design of the program. When it comes to creating a program the general assumption seems to be that an employee does not have many ideas about learning. This is inconsistent with the knowledge we have on adults as learners. Knowles identified the following characteristics of adults as learners (Lieb, 2001):

- Adults are autonomous and self-directed.
- Adults have accumulated a foundation of life experiences and knowledge.
- Adults are goal oriented.
- Adults are relevancy oriented.

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- Adults are practical, focusing on the aspects of a lesson most useful to them in their work.
- As do all learners, adults need to be shown respect.

The above characteristics offer guidelines for the design of learning for employees. Adults want their learning to be relevant for their work. They want it to be useful for their work. Adults are able to define goals and to direct their learning. It seems that adults know quite well what they want to learn, it must be relevant, with a practical focus. They are also able to direct themselves in learning.
Yet despite this knowledge most programs are not designed according to the above characteristics. In most programs professionals decide about the goals, the activities the organisation and the evaluation.

Besides the characteristics of the employee there is a second issue concerning transfer, which is the work environment. When the work environment influences transfer of learning; learning at the workplace seems a good option.

In a research about effectiveness of learning at the workplace a few reasons where given for the increased attention for this form of learning (Van der Klink, 1999). There are three reasons;
- Better transfer, since the learning situation is identical to the work situation.
- Cost reduction, learning is organised at the workplace, no costs for travelling, to stay over, and no complete cut off from the production process, and
- Flexibility, work place learning can be organised any time when needed by the learner.

Most learning at the workplace is informally. Callahan, Watkins and Marsick estimate that 60-80% of learning in today's workplace occurs informally. In this research we look at informal learning at the workplace.

The last element that influences transfer is the design of the training. In this research we look at informal learning at the workplace; so there isn't a real design possible.
In this research we connect as closely as possible with adults learning at the workplace to enhance and stimulate learning. The focus of this research is on the organisation of the learning at he workplace by employees and the influence of relevant other actors concerning this organisation of learning.
The term organisation of the learning is mentioned here. This term is used, since design of the learning usually implies a certain order in steps to take, beginning with the definition of a learning goal. Most learning at the workplace is informal and not ordered. Therefor we use the term organisation of the learning.
Main question is: How do employees organise their learning and what is the influence of relevant actors upon this organisation?

Theoretical framework and previous research

This research fits within a framework of literature on; informal learning and learning at the workplace, transfer and selforganised learning. The organisation of the learning at the workplace will be analysed by the steps that are made in the design of a program. First we start with the constructivist learning theory in order to clarify the view upon learning.

Constructivist learning

In this research we take a social constructivist view upon learning. The constructivist approach can be defined as followed (Duffy & Jonassen, 1992):
"There are many ways to structure the world, and there are many meanings or perspectives for any event or concept. Thus there is not a correct meaning that we are striving for". Kessels (2000) sees learning, from a constructivist point of view, as building up experiences.
There are many different views within constructivism. Moshman (1982) gives a comparison of these different views. He distinguishes different types of constructivism: exogenous, dialectic and endogenous. If you draw a line of constructivism, both exogenous and endogenous are two opposite ends of the same line.

Exogenous ---------- Endogenous

Exogenous constructivism sees knowledge as external to the individual. Knowledge is internalised and reconstructed from external reality.

Endogenous constructivism sees knowledge as constructed by mental structures. So knowledge is reconstructed form internal reality. This form of constructivism is associated with Piaget and his theory of cognitive development.

Exogenous constructivism lays too much emphasis on the external environment and endogenous constructivism lays too much emphasis on the internal environment.

Dialectic constructivism sees knowledge as the result of an interaction between the learner (internal environment) and the external environment. In this research the focus is on the employee as a learner at the workplace. He or she organises his or her own learning. During the process other actors will help him of her with this organisation. It is an interaction between the learner and the other actors, the environment. So both the internal environment, the learner, as the external environment, the actors, are relevant for this research. Dialectic or social constructivism therefor fits this research best. Like Palinscar (1999) says: 'Social constructivist perspectives focus on the interdependence of social and individual processes in the co-construction of knowledge'.

Learning at the Workplace and Informal Learning

Hereby follows an overview of literature on learning at the workplace and informal learning in order to clarify the place of this research.

The following description offers the view within this research upon learning at the workplace (Onstenk, 2001):" Learning at the workplace is experience based learning, an active, constructive and largely self directed process, that occurs in real professional situation as a learning environment with real problems coming from professional practice as a learning object".

In general learning at the workplace seems to be more unplanned, unstructured and not regulated (Onstenk, 2001). Within these forms of informal learning Onstenk gives an overview; based on a dissertation literature review of different kinds of learning at the workplace (1997).

He divides four clusters of approaches in learning at the workplace:

- Immanent and expansive learning, learning directly integrated with work.
- Situated learning, learning in and from a physical, symbolic and social work environment.
- Independent learning, self regulated and intentional learning at he workplace, and
- Job and professional socialisation, learning as job socialisation.

Informal and incidental learning is defined in contrast with formal learning by Marsick and Watkins (1990) as: ' Formal learning is typically institutionally sponsored, classroom-based or highly structured. Informal learning, a category that includes incidental learning, may occur in institutions, but it is not typically classroom-based or highly structured, and control of the learning rests primarily in the hands of the learner. Incidental learning, a subcategory of informal learning, is defined by Watkins as a by-product of some other activity, such as task accomplishment, interpersonal interaction, sensing the organisational culture, trial-and-error experimentation, or even formal learning. Informal learning can be deliberately encouraged by an organisation or it can take place despite an environment not highly conducive to learning. Incidental learning, on the other hand, almost always takes place in everyday experience although people are not always conscious of it'.

Marsick and Watkins are looking at the individual learning in an organisation where learning and change is taking place.

The following themes of informal learning are being summarised by Marsick and Volpe; based on a dissertation literature view by Cseh (In: Marsick, 2001):

- Integrated with work and daily routines.
- Triggered by an internal and external jolt.
- Not highly conscious.
- Often haphazard and influenced by chance.
- An inductive process of reflection and action, and
- Linked to the learning of others.

Onstenk describes learning at the workplace in terms of active behaviour. This behaviour is placed within the organisation as an environment. He characterises the environment with elements relevant for the learning; real problems coming from professional practice. In the end of his definition he characterises the learning; ' it is unplanned, unstructured and not regulated' (Onstenk, 2001).

Marsick and Watkins define informal learning in contrast with formal learning. The explenation of incidental learning clarifies what it is that people do; 'task accomplishment, interpersonal interaction, sensing the organisational culture, trial-and-error experimentation, or even formal learning' (1990).

It seems that Onstenk is also describing incidental learning; while he is using the term workplace learning. In this research we try to find out what individuals do when they learn incidentally. We prefer the definition on Onstenk on workplace learning. But in this research we use the term informal learning; since it is the aim of this research to deliberately encourage this form of learning.

Now follows a further explanation on the different clusters that Onstenk (1997) divided.
The first cluster immanent and expansive learning, is learning directly integrated with work. Main characteristic of this form of learning is that it is closely related to problems that occur during work. There is a relation between development of competencies and the design of future work in all researches within this cluster.
The next cluster focuses on situated learning, learning from work environment, either a physical, symbolic or social work environment. There is a lot of attention for the social organisation of the learning process in different situations related to practice. The main characteristic of this research is the attention to practical or academic skills.
The cluster on independent learning is about self directed and intentional learning. Central to this approach is the focus on the independent forms of learning, with an accent on the learner. Within learning at the workplace, there is a lot of attention on the informal ways of learning. It is more intentional, autonomous, spontaneous, and self directed by the learner.

The last cluster described by Onstenk is about job socialisation and professional socialisation, with a view on learning as job socialisation. The workplace is a social environment where culture plays a role. Learning is seen as 'educating at the workplace'. This form of learning is about internalising culture, values and beliefs of a profession and the organisation of the professional group.
This research focuses on situated learning and independent learning. These aspects touch on two characteristics of learning that are important in this research, namely that the learning is situated and that learning is self-organised. The constructivistic view upon learning coheres with the above points. From the themes that are mentioned by Marsick and Volpe; based on the dissertation literature review by Cseh; the following are relevant for this research (In: Marsick, 2001):

- Integrated with work and daily routines.
- Triggered by an internal and external jolt.
- An inductive process of reflection and action, and
- Linked to the learning of others.

Transfer

The transfer of knowledge or experiences from one moment to another, the reusability of the knowledge or the experience, makes it valuable. Based on the constructivist theory we acknowledge that knowledge is recreated over and over again by individuals. Therefor we can't speak of exact or objective knowledge; we talk about subjective knowledge. Individuals give meaning and value to knowledge.
Baldwin and Ford, in a review study on transfer of training, define that transfer has occurred when ' learned behaviour is generalised to the job context and maintained over a period of time on the job' 1988). They include two conditions of transfer:

1. generalisation of material learned in training to the job context
2. maintenance of the learned material over a period of time on the job

The model that they used, as explained earlier in this paper, was based on three elements:

- Trainee characteristics: ability, personality and motivation influence transfer in a direct and indirect way.
- Training design: principles of learning, sequencing and training content influence transfer in an indirect way.
- Work environment: support and opportunity to use influence transfer in a direct and indirect way.

The indirect way is via learning and retention to transfer. Trainee characteristics and work environment both influences transfer in a direct way. Whereas training design only influence transfer via learning and retention.

Self-organisation of Learning

There is very little literature on learning that focuses on self-organisation by the learner. In an attempt to define self-organisation of the learning and the different activities concerning self-organisation of the learning we look at literature on self-directed, self-regulated learning and the design of a learning trajectory.
Self-directed learning is about educating and teaching oneself. There is a focus on the initiative of the learner and the learning goals he or she makes explicit. In an overview by Onstenk (1997) research on self-directed learning is described as concentrating on the interaction between the learning individual and the organisation. Employees need to have specific learning projects and learning strategies.
Self-regulated learning has its background in psychology. Zimmerman (1989) describes self-regulated learning in general as follows:
" Students can be described as being self-regulated in the way they are metacognitively, motivationally and behaviourally active participants of their own learning process".

The definition of self-regulated learning from Simons (1993), within constructivist learning comes closer to the view upon self-regulated learning within this research:
" the learner is able to prepare the learning themselves, make the necessary steps within the learning, regulate the learning, take care of feedback and criticisms and make shore that concentration and motivation stay in tact".
A difference between the definition of Zimmerman (1989) and Simons (1993) is that Zimmerman (1989) describes self-regulation mainly in terms of internal processes. Where Simons (1993) describes self-regulated learning mainly as different activities performed by the learner. This last definition is more in line with this research. Since the focus is on the organisation of the learner, as in activities performed by the learner. These activities can be compared with the activities that professionals take in the design of a learning trajectory.
Visscher-Voerman (2000) in a overview of this design process, explains that every approach has four core activities:

1. Analysis
2. Design and Development
3. Evaluation
4. Implementation

We compare the following elements of the definition by Simons with the core activities described by Visscher-Voerman. The preparation of the learning can be compared with the analysis of the problem. Preparation of the learning can start with an analysis, either an analysis of a problem or something else related to work. It is also possible that it is not an analysis but an activity or something else. Since the starting point of this research is informal learning, it is possible that the learning is not prepared at all.
Making steps in the learning and regulating the learning can be compared with design and development. To decide at a certain moment of time how to proceed with the learning or any to be taken steps can be seen as design of the learning. Where the improvement of changes within these planned steps can be seen as development of the learning.
Receiving feedback and criticisms can be compared with the evaluation phase.
Learning is seen as organised by an employee when he or she:

- prepares the learning
- regulates the learning
- evaluates the learning

Simons states in his explanation of self-regulated learning that the five elements, named in his definition, can be taken care of by a second person. During a learning process there is usually a second person involved. In school settings this is the teacher, but it can also be a book. A book can be seen as a representation of a 'second' person. In this research we try to find the second person in the process and in the three, different elements. We call these 'second' persons actors, actors relevant for the leaming of employees. This can be manager, colleagues or even customers.

In this research there is a search for the organisation of the learning at the workplace by the learner. This might be an unconscious organisation that the learner is unaware of during the learning. We try to find a structure, or elements of a structure, within this learning. Thereby the relevant actors concerning ones learning will be discovered and involved in this research. With the different elements as a guide the input of the learner and the input of the other actors the organisation of the learning will be analysed as well as their opinion on this organisation. This is in search of the balance in learning. Where does the input of the learner ends and the input of the actor starts?

Methodology and Research Design

This is exploratory research in the field of informal learning or learning at the workplace. Exploratory in the sense that the aim of this research is to find a structure in which we can place the organisation of learning by employees. Based on this structure an analysis is made of the involvement of the learner and the involvement of the other actors in the organisation of the learning. The main question is how self-directed learning is organised and where the balance is between the direction given by the learner and the other actor.
The next step in the future of this research will be to discover and implement different ways of organising learning at the workplace by directing and supporting learners and relevant actors to certain elements of the organisation of the learning.

We take an interpretative view upon research opposite to the positivistic view. The positivistic view states that there is one true knowledge, that this knowledge is 'hard' and can be transferred to everyone else. The interpretative view states that knowledge is connected to persons and is interpreted by persons, therefor there does not exist one true objective knowledge. Consequences for this research are that we will gather my data by asking people their perceptions on certain issues.

Since it is the learning of employees that is going to be intensified, the choice was made to start with their input. The results of the interviews will be compared with literature on this subject. But the starting point was perceptions of individuals on their own learning.
This starting point was taken for a couple or reasons:

- The interpretative view on learning, that defines knowledge as being subjected and connected to the individual.
- The constructivist theory that defines learning as recreation of knowledge over and over again, influenced by the environment and interaction with others.
- Individuals taken as a central starting point in this research, and letting them define what elements play a role, and
- The characteristic of what was researched, the way individuals organised their learning, which is closely connected to the individual and therefor could be different per person.

Based on the interpretative view upon the acquirement of knowledge and the characteristics of what knowledge is, combined with the constructivist theory, the way to research this form of learning is by interviews.
This research follows the principles and methods of development research. Development research is used a lot for design problems. This research can also be seen as a design problem. The aims of development research are (Van den Akker, 1999):

a. Providing ideas (suggestions, directions) for optimising quality of the intervention to be developed.
b. Generating, articulating and testing design principles.

To get an idea about the learning that occurs and the elements in the organisation of the learning we will interview professionals in different contexts. Professionals here are defined as: employees with complex tasks within their work. We choose professionals for two reasons. Their job is rich enough for the occurrence of learning. And because these professionals have some freedom in their work to organise their work and therefor probably more freedom to organise their learning as well. So the learning potential of these professionals is high.
In order of the future work of this research, the implementation of different ways of organising learning at the workplace by employees, will looked upon by the following existing structures within organisations:

- POP, personal development plan
- Coaching trajectories
- Innovation and improvement trajectories

These starting points are chosen because they all give rich opportunities to learn. These are formats already existing in organisations with the possbility that he learner can organise his or her own learning.
A personal development plan is a plan in which the employee can explain what he or she wants to develop.
A lot of employees use coaches to help them with different aspects their dealing with at work. This as well is a format with rich possibilities.

Innovation trajectories are new developments in organisation. This can be the development of a new product as well as an organisation going to the stock exchange.
These trajectories are trajectories where a lot of people usually have to learn new things, which they partly organise themselves.

Improvement trajectory is a trajectory where products or services can be improved. For example an IT department has to improve herself constantly. Since the development within this field takes place in a fast way, the employees are learning constantly.

There will be three cases developed. For each format three professionals will be approached. There will take a semi-structured interview place. Based on this interview other actors will be revealed and interviewed as well about the same incident.

The interview will take place according to the critical incident technique. This technique is "an appropriate tool that can be used to analyse jobs in the social context in which they occur" (Stitt-Gohdes, Lambrecht & Redmann, 2000).

After analysing the first interviews a list of steps or elements in the organisation of the learning is being made and the perception on the input from the learner and other actors on the organisation has become clear.
To avoid uncertainty in the interpretation of the data a questionnaire will be sended to the interviewees with questions based on the outcomes of the interviews. With the intention to check whether same outcomes are receive.

How This Research Contributes to New Knowledge in HRD

This research will contribute to knowledge on how employees organise their learning and what preferences they have in informal learning. Based on the outcomes informal learning in organisations can be intensified according to the preferences of employees.

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Self-Management and Labor Market Outcomes

Jasper B. van Loo
Maastricht University, The Netherlands

In this paper, the relation between self-management and labor market outcomes is addressed. Insights from both the current debate on employability and the economic training literature suggest that training and self-management are important factors for labor market success. The goal of this paper is to theoretically and empirically address this issue. A framework for analyzing the relation between self-management, training and labor market outcomes is presented and applied to survey data.

Keywords: Self-Management, Labor Market, Empirical Analysis

The changes in the relationship between workers and firms regarding careers have had important implications for both HRD theory and practice. The emergence of new psychological contracts have resulted in a shift from the traditional organizational career to what has been termed the 'protean career' (Hall and Moss, 1998), which is a career that individuals, not organizations are managing. The need for the new relation between workers and firms has been created by various developments taking place in modern societies: technological innovations, organizational developments, quality management and increased competition (Bishop, 1997; Collin, 1994; Watkins and Marsick, 1993; Stasz, 1998).

In the resulting employability debate, the need for individual worker flexibility is often stressed. It is assumed that workers that are more employable will be more successful in terms of labor market outcomes than their less employable colleagues. In the training literature, which is mainly inspired by the economic benefits of training, the need for continuing updating of skills is the main issue. Here, the determinants and effects from training participation have been extensively addressed and training participation is usually related to individual and work characteristics (see e.g. Blundell et al., 1996). Some of the empirical results obtained in economic studies on training participation have become standard results. For the United Kingdom, Shields (1998), and for the United States, Altonji and Spletzer (1991), Lillard and Tan (1986), Lynch (1992) and Lynch and Black (1995) summarize most of these findings: training decreases with age, training participation is lower for females and people with children; qualifications have a positive effect on training participation; union members are more involved in training than non-union members. This paper tries to integrate concepts from the employability debate and the literature on training effects by looking at the impact of self-management on labor market outcomes while taking account of training investments.

Specifically, the relation between perceptions on self-management and labor market outcomes will be discussed. This type of research is important in the HRD-field since it enables the identification of factors that make people successful in their careers. If self-management turns out to be one of the key factors explaining career success, the stimulation of self-management might become one of the new tasks of modern HRD-professionals.

The central research question in this paper is: *In what way are self-management and labor market outcomes related?* The paper will be structured as follows. In the next section, the theoretical framework for the relation between self-management and labor market outcomes will be discussed. We then present our specific research questions. In the next two sections the data used are discussed and four empirical analyses are presented. The final section concludes and summarizes.

Theoretical Framework

Psychological Contract and Self-Management

Self-management is an important characteristic of a modern psychological contract, since it plays an eminent role in the discussion on 'modern' psychological contracts. Argyris introduced the psychological contract as a concept in 1960 and defined it as *an implicit agreement to respect each other's norms*. Later on, it was defined as a *product of mutual expectations that are implicit and unspoken, which may antedate the employment-organization relationship* (Levinson et al., 1962). In general, psychological contracts are considered to be dynamic in nature, implying that changes in individuals, organizations or in the broader context have a direct effect on the contract and its outcomes

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Many authors have noted that the psychological contract has changed considerably during the last decades (see e.g. Hall and Moss, 1998). Whereas the *traditional* psychological contract is concerned with trading job-security for loyalty, in a *modern* contract employees offer flexibility while firms offer possibilities to remain employable. An important element in the behavior of employees resulting from the psychological contract is the *degree of self-management*. The degree of self-management may be characterized by four career management competencies (Ball, 1997): a) optimizing the current situation, b) using career planning skills, c) engaging in personal development and d) balancing work and non-work activities. In this paper, the focus will be on b) and c). In a modern psychological contract, the individual perceptions on self-management determine the outcomes of the psychological contract. It may be expected that individuals with a higher degree of self-management will also be more successful on the labor market. In line with this theoretical assumption, employees' self-management perceptions influence labor market outcomes.

When the degree of self-management is discussed, often a distinction is made between a) self-management perceptions on initiative and b) self-management perceptions on responsibility. As a result, in the context of this paper, self-management consists of four elements. Training-related self-management initiative, training-related self-management responsibility, career-related self-management initiative and career-related self-management responsibility. (see also Delf and Smith, 1978). Training-related self-management initiative is defined as taking the lead in initiating training participation. Training-related self-management responsibility may be defined as the perceived obligation to be liable for training outcomes. Career-related self-management is defined as taking the lead in career development. Finally, career-related self-management is defined as the perceived obligation to be liable for the outcomes of career development. The relation of these four self-management elements to labor market outcomes is, however, not straightforward a priori. The goal of this paper is to investigate this issue from both a theoretical and an empirical perspective.

Labor Market Outcomes

Measuring someone's success on the labor market has long been an area of research that has been dominated by labor market economists. Starting with the pioneering work of Becker and Mincer in the 1960's, the concept of Human Capital was introduced. The main theme in their analysis is that the investment in human capital is comparable to the investment in physical capital (which had been studied extensively before), in the sense that an optimal decision for investment should be based on a careful examination of the returns and the costs of human capital investments. The relevant labor market outcome variable in most human capital literature is the wage. In countless articles that have appeared in the economics journals, economists have typically estimated wage equations, where human capital was related to different indicators for human capital investments, such as e.g. initial education, training and experience.

The classical human capital model takes wages as its sole explanatory variable. The assumption behind this is that wages are an unbiased estimator of productivity and that hence, all aspects of productivity are valued and can be summarized in a single indicator, the wage. Since many obstacles exist, the labor market is, however, far from perfect. There may be imperfect competition in markets for human capital, meaning that some types of human capital are only valuable in distinct situations, such as in the case of completely firm specific capital. But there may also be other reasons for a possible bias in the wage as an indicator for productivity. Firms may, for example, notice increases in workers' human capital with a lag, or they may wait rewarding it due to institutional constraints in wage-systems.

All this does not mean that wages are not suitable for analyzing labor market outcomes. We may continue to use the wage as an indicator for the valuation of human capital, but interpret it as the 'realized yields' from human capital investments. In addition, we may consider measures for the 'unrealized yields', which may be defined as an effect from human capital investments that is not yet reflected in the current wage. We consider two workers' labor market *potential* variables as indicators for the unrealized wage yields. The first one is the probability of finding a similar job outside the company one is currently working in (external labor market potential). The second indicator we use for labor market potential is the probability of keeping the current job (internal labor market potential). The emergence of the new psychological contract has also made these indicators for labor market success more important for employees themselves. Not only the success in the current job, which is traditionally measured by the wage, but also labor market potentials, which are important in times of (voluntary or forced) job changes, are important in a career.

A final labor market effect variable concerns bonuses: or sums of money that are rewarded for excellent work performance. These 'incidental monetary rewards' may be considered a somewhat more direct valuation of someone's performance than the wage, since wages are typically not instantaneously adjusted to reflect worker

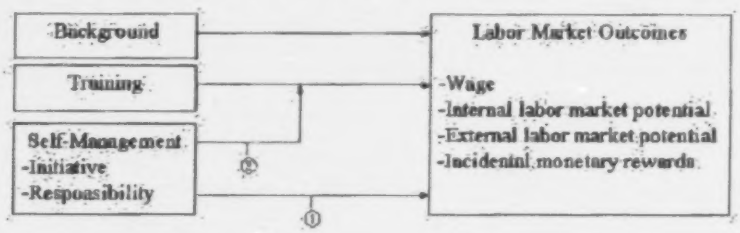
performance, due to, e.g. wage regulations or efficiency wage arguments. Bonuses, on the other hand, are not part of formal agreements and provide firms with a flexible instrument to reward outstanding productivity.

Model

When the relation between self-management and labor market outcomes is modeled, some potential problems arise. Firstly, labor market outcomes are influenced by many more factors than just self-management. For instance, level of education and the (past) participation in training courses may also have their impact on labor market outcomes. In addition, self-management may have a direct effect on labor market outcomes, but it may also affect these outcomes in an indirect manner. For instance, although some aspects of self-management do not have a direct effect on wages, these aspects may make training investments more or less productive, thereby exerting an indirect effect on wages. These considerations imply that the relation between self-management and labor market outcomes must be modeled using various background variables and interaction variables.

Bearing these considerations in mind, the relation between self-management and labor market outcomes may be modeled using the following model:

Figure 1. Research model for the relation between self-management and labor market outcomes



Relation (1) depicts the direct relation between self-management and labor market outcomes. Relation (2) maps the second possible relation under investigation. It is based on the idea that the degree of self-management may make training more or less productive. In the empirical analyses, we allow for this effect by using interaction variables for training and various aspects of self-management.

Research Questions

From the previous discussion, the following research questions arise:

1. To what degree does the wage depend on perceptions on self-management.
2. To what degree does internal labor market potential depend on perceptions on self-management.
3. To what degree does external labor market potential depend on perceptions on self-management.
4. To what degree do incidental monetary rewards depend on perceptions on self-management.

All four research questions refer to both the direct effect from self-management on labor market outcome variables and the possible indirect interaction effects with training participation.

Methodology

In this paper we use data from a survey we conducted in 1999 among employees of a large firm in the Netherlands financial services sector. The reason for using survey data is that we have not found other data sources that cover a wide array of human capital variables, labor market outcome, and self-management variables simultaneously. The company we investigated consists of 2 divisions. These divisions only differ in that they work for different parts of the insurance market. We have sampled 100 employees, 50 from each division, from a population of about 480 people using a stratified random sampling procedure. This group is relatively homogenous since they all have the same job description. As our objective was not to point out differences in occupations when it concerns labor market outcomes or self-management perceptions, we were able to keep the sample relatively small. The used set-up has the advantage that we are able to focus on the key concepts in the model without having to correct for differences in occupations or firm policies. We surveyed the workers using a face-to-face interview where the interviewers entered the answers directly in a computer that used automated survey software.

The group of workers that are central to our investigation are the so-called 'administrative employees'. Their job mainly consists of dealing with insurance benefit applications, determining the amount of money a client is entitled to, dealing with the clients incidentally, and keeping the files of clients up-to-date. The work is mostly done using highly advanced computer information systems. The work is organized in teams, usually consisting of about 20 people and a manager. We surveyed employees in 11 of those teams. Thanks to careful consultation with the company and potential respondents beforehand, we managed to obtain a response rate of 91%. A non-response analysis revealed that there are no serious reasons that the data may be blurred by selectivity. In addition to the data from the employee interviews we were able to use information from the firm's personnel information database, which contains many background variables.

Self-Management Variables

The employees were asked four self-management questions. The first two capture the perception on training-related self-management. Respondents were asked whether they felt that they are responsible for taking the initiative for their own training. They answered on a five-point scale, ranging from "completely agree" to "completely disagree". A similar question was asked for the perception concerning training-related self-management responsibility: employees where questioned whether they feel that they should bear the responsibility for their own training. The same methodology was followed for measuring the degree of career-related self-management. Employees were asked whether they responsible for taking the initiative for career development and whether they feel that they should bear the responsibility for their own career development. Table 1 shows that the majority of employees have a positive attitude towards the various aspects of self-management.

Table 1. *Self-management perceptions*

Self-Management Indicator	-- %	- %	+/- %	+ %	++ %	cases
Initiative for own training	1.0	11.3	7.2	64.9	15.5	97
Initiative for own career development	1.0	8.3	6.3	55.2	29.2	96
Responsibility for own training	1.0	12.1	5.1	69.7	12.1	99
Responsibility for own career development	0.0	10.1	8.1	64.6	17.2	99

-- = completely disagree; - = disagree; +/- = neutral; + = agree; ++ = completely agree

Training Variables

In most empirical work concerning the relation between training and labor market success is analyzed using the total number of training courses or total duration of training. Since different types of training may yield different effects, we distinguish between different types of training activities. People take part in training courses for different reasons. They may take a training course to make up for lost skills, be involved in training to improve career perspectives, or take courses simply because they have a preference for learning new things. In this paper, training is split up according to whether it is meant to combat skills obsolescence or undertaken for career reasons ('core' and 'career' training, Bartel, 1992). Training for career reasons is expected to have a positive effect on job prospects, since it adds to the stock of human capital available to workers. Training in order to combat skills obsolescence may have either a positive or a negative effect on job prospects. Low incidence of this type of training may imply low skills obsolescence in the worker involved, leading to better job prospects. On the other hand, a high incidence of this type of training may imply that the worker involved undertakes many activities to combat his skills obsolescence, which might also lead to better job prospects. Evidence dsewhere (Van Loo, 2002) shows that training undertaken to combat skills obsolescence has no effects on labor market outcomes. We therefore leave this type of training out of the analysis.

The second distinction we make is the division between firm specific and general training. We expect different effects of these two types of training since firm specific training is less valuable outside the firm one is working in, and is less likely to have positive effects on external labor market potentials. On the other hand, general training is useful in a great number of circumstances, and may therefore have stronger effects on external labor market potentials.

Finally, we distinguish between recent and non-recent training. It seems logical to assume that training courses taken recently yield smaller effects then training that was taken many years ago. We consider recent training to be all courses taken in the last five years. All courses before that are considered non-recent courses.

Table 2 presents the distribution of different types of training for the different categories distinguished. It shows that the majority of training courses is undertaken for skills obsolescence reasons.

Table 2. *The division of total training in the distinguished categories*

Type of training	%
Training courses meant to combat skills obsolescence	64
Specific career training courses: recent	7
Specific career training courses: non-recent	6
General career training courses: recent	7
General career training courses: non-recent	16

Labor Market Outcomes

In this paper, we use 4 different indicators for labor market outcomes: Wages, internal labor market potential, external labor market potential and incidental monetary rewards. Wages have been taken from the personnel information database, avoiding commonly reported measurement problems with this variable. Labor market outcomes are measured by using the answers on two questions in the survey that measure the self-rated career prospects. Both the probability to remain employed (internal) and the probability to find a new job (external) were measured on a 1-5 scale. Finally, the incidental monetary rewards have been measured by looking at the total amount of bonuses that employees have received over a two-year period (1998-1999).

Background variables

We include six background-variables in the analysis. Two commonly used indicators for human capital are tenure and educational background. In order to take account of a possible quadratic relation between tenure and labor market outcomes, we include tenure-squared as well. Another indicator for human capital is the quality of workers' competences. Since our database contains detailed information on employees and their managers, we are able to include a manager rating for the workers competences. In order to take account of possible gender effects, we include gender. Finally, a dummy for firm division captures possible differences between the two firm departments.

Results

In order to address our research questions, we estimated four labor market outcome equations, one for each labor market outcome variable. In a first step, all variables discussed above were included in the analysis. We find the following results: Tenure has a positive effect on wages, while tenure-squared exerts a negative influence. These results are consistent with those found in much of the human capital-wage literature. The effect from the manager's performance rating of employees is positive, indicating that employees with better abilities earn relatively more. The different types of training have no significant effects on wages. Training-related self-management responsibility, however, does have a positive effect, meaning that workers with a stronger tendency towards responsbility for their training related self-management earn more. Finally, two interaction terms have significant effect on wages: The interaction of general non-recent career training and training-related self-management responsibility has a negative effect on wages. On the other hand, the interaction effect of recent general career training and training-related self-management is positive.

External labor market potential is only significantly influenced by one variable in the full model: firm division. Internal labor market potential, on the other hand, is influenced by three: Gender (+), firm division (+) and non-recent general career training (-). The last results is surprising, since in general, investment in training is considered to have positive effects on human capital. The results here indicate that the acquisition of general human capital in the past does not have a positive effect, but rather punishes workers in the present. In the explanation of incidental monetary rewards, we find three significant effects. The managers' performance rating has an expected positive effect, firm division has a positive effect while recent general career training is rewarded positively as well.

Restricting the Estimations

A key problem in the estimations is that when some variables are strongly correlated, the estimation will fail to show significant results. In order to solve this, the four labor market outcome equations were re-estimated with fewer variables. We used a stepwise approach, where the least significant variables where subsequently deleted from the model. We stopped adjusting the equation once we found a result where all included variables were significant at a least the α=0.10 level. We then obtain the equations shown in table 3.

Table 3. *Self-Management and Labor Market Outcomes, OLS-Estimation, Restricted Models*

	(ln) Wage	External LMP	Internal LMP	Incidental
Constant	7.871	3.157	6.681	-5235.39
Tenure	0.02770***	-0.04479***	-0.04872**	X
Tenure-squared	-0.0005147***	X	X	X
Gender (1=female)	X	X	X	X
Highest achieved educational level	X	X	-0.378**	X
Manager performance rating	0.02138***	X	X	670.57***
Firm division	X	-0.475**	0.931***	3344.37***
Career training, general, not recent	0.124**	X	-1.716*	X
Career training, specific, not recent	X	X	X	-8382.10**
Career training, general, recent	X	X	X	X
Career training, specific, recent	X	X	X	X
Training related self-management initiative (S1)	X	X	-0.382**	X
Career related self-management initiative (S2)	X	0.229*	X	X
Training related self-management responsibility (S3)	0.02484**	X	X	X
Career related self-management responsibility (S4)	X	-0.260*	X	X
Career training, general, not recent * S1	X	X	X	X
Career training, general, not recent * S2	X	X	X	638.43***
Career training, general, not recent * S3	-0.02649*	X	0.463**	-610.13**
Career training, general, not recent * S4	X	X	X	X
Career training, specific, not recent * S1	X	X	X	X
Career training, specific, not recent * S2	X	X	X	X
Career training, specific, not recent * S3	X	X	X	2458.12**
Career training, specific, not recent * S4	X	X	X	X
Career training, general, recent * S1	X	X	X	X
Career training, general, recent * S2	X	X	X	X
Career training, general, recent * S3	X	-0.413*	X	X
Career training, general, recent * S4	X	0.520**	X	X
Career training, specific, recent * S1	X	X	X	X
Career training, specific, recent * S2	X	X	X	X
Career training, specific, recent * S3	X	X	X	-237.14**
Career training, specific, recent * S4	X	X	X	X
Number of cases	94	94	92	94
R-squared	0.847	0.412	0.189	0.568

*=significant with α=0.10, **=significant with α=0.05, ***=significant with α=0.01, X=variable not included

The re-estimated labor market outcome equations show the following: For wages, tenure, tenure-squared, and the manager performance rating have the expected effects. General non-recent career training has a strong positive effect. Training-related self-management responsibility also has a positive effect. Finally, the interaction between general non-recent career training and training-related self-management is negative, indicating that the combination of this type of training with a strong sense of responsibility concerning training has a negative wage effect.

Interestingly, tenure has a negative effect on both external and internal labor market potentials. This might be due an experience of concentration, which occurs when people work the same job for a prolonged period of time. The highest achieved educational level has a negative impact on internal labor market potentials, which is somewhat surprising. Firm division has a negative effect on external labor market potentials and a positive effect on internal labor market potential, indicating considerable differences between the two firm divisions. When it concerns the

self-management variables, we find a negative effect from training-related self-management initiative on internal labor market potentials, a positive effect from career-related self-management initiative on external labor market potentials and a negative effect from career-related self-management responsibility on external labor market potentials. The interaction of recent general training and training-related self-management responsibility has a negative impact while the interaction of this type of training and career-related self-management responsibility has a positive impact on external labor market potentials. Finally, the interaction of non-recent general career training and training-related self-management responsibility has a positive effect on internal labor market potentials.

When we turn to the final column in table 3, it comes apparent that the manager performance rating has a positive effect on incidental monetary rewards (bonuses). Firm division has a positive effect as well. It is surprising that specific non-recent career training has a strong negative effect on bonuses. It might be that the weakest group of workers is more involved in this type of training than their more able colleagues, implying that being involved in such a training no longer signals human capital acquisition but rather employee weakness. Finally, four interaction terms have significant effects. The combination of training-related self-management responsibility and both non-recent general and recent specific training courses both have significant negative effects on bonuses. Non-recent general and non-recent specific career training combined with a high degree of career-related self-management initiative and training-related self-management responsibility respectively have a positive impact on the incidental monetary rewards.

Summarizing, we find that wages are influenced positively by both general non-recent career training and training related self-management responsibility. The interaction of these variables, however, has a negative impact on wages, suggesting a 'declining returns' mechanism. For external labor market potentials, we find that career related self-management initiative has a positive influence, while career-related self-management responsibility has a negative impact. The latter result might be due to the fact that employees with a high feeling of responsibility only take career steps that they are totally comfortable with, resulting in a somewhat less favorable external labor market potential. The interaction terms show opposite signs, and are somewhat hard to interpret. When internal labor market potential is considered, the analysis shows that it is influenced negatively by training-related self-management initiative. This type of self-management is not rewarded in terms of internal labor market potential. The interaction of general non-recent career training and training-related self-management responsibility, on the other hand, does have a positive impact. This implies that those employees that were involved in this type of training and also have a high degree of self-management responsibility have better internal labor market prospects. Finally, non-recent specific career training has a negative impact on bonuses. This implies that the firm does not perceive this type of as a human capital investment, but rather as a signal for weak employees. Four interaction variables also have significant effects, but the interpretation of these results is difficult.

Discussion and Conclusion

The emergence of new psychological contracts have resulted in a shift from the traditional organizational career to what has been termed the 'protean career'. The need for a different relation between workers and firms has been created by various developments taking place in modern societies: technological innovations, organizational developments, quality management and increased competition. As a result, an employability debate has emerged wherein the need for individual worker flexibility is often stressed. In the economically inspired training literature, the need for continuing updating of skills is the main issue. This paper has attempted to integrate concepts from the employability debate and the literature on training effects by looking at the impact of self-management on labor market outcomes while taking account of training investments.

A model has been developed that relates self-management perceptions, training participation and labor market outcomes. The model allows for both direct effects of self-management on labor market outcomes as well as indirect interaction effects with training participation. From survey data, we find that the different indicators for labor market outcomes are influenced by different explanatory variables. The results also lend support to the existence of direct and indirect effects of self-management on labor market outcomes. Not all found effects are, however, intuitively predictable. In this respect, e.g., the negative effect of general non-recent career training on internal career potential is quite puzzling. It could be due to the fact that a worker who is involved in many general career courses signals to the organization that he is willing to leave, which in turn makes organizations restrict further career possibilities. On the other hand, however, it could be that workers that take general career courses are candidates for dismissal, which causes a lower internal labor market potential. Among other issues, this question of causality needs further attention. Other possible future research should focus on validating the results using broader populations. Although the analyses show that self-management matters for labor market outcomes, the results found here hold for one

company only. It would be quite attractive to be able to generalize the results, since understanding the impact of self-management can improve both HRD theory and practice.

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Characteristics Orientation of Emerging Professions: Implications for Research, Policy and Practice of Continuing Professional Education

William H. Young
University of South Florida

Margot B. Weinstein
Kingston Group Inc.

The purpose of this qualitative study was to examine emerging professions in American society through the characteristics orientation presented by Gilley and Eggland (1989), and relate the implications to Continuing Professional Education (CPE). The paper first defines the orientation. Second, it describes the fields of Information Technology, Real Estate, and HRD in relationship to the model, and third, it discusses the issues and trends for the research policy and practice of CPE.

Keywords: Professionals, Continuing Professional Education, Professionalization of HRD

"A central feature of North American societies in the 20th century has been the professionalization of their workforces" (Cervero, 1988, p. 3). It has been estimated that 25 percent of the American workforce claims membership in a profession (Cervero, 1988). There is little argument that professionals are central to the functioning of American society (Cervero, 1988; 2000; Houle, 1980; Curry, Wergin and Associates, 1993). Because of their importance in American society, it is assumed that professionals will continue to learn throughout their careers, and to meet this challenge, a tremendous amount of resources, both financial and human, are used to create education programs to improve practice for these practitioners (Cervero, 1988). These practitioners "present a picture of rapidly changing practice settings across the professions, and thus, the need for a continuing education response that is up to the task of preparing professionals for this world" (Cervero, 1998, p. x). Daley (2000) added, "although continuing professional education (CPE) has undergone significant changes in the past decades, yet there is little current literature that assists practitioners in developing an expanded understanding of the new issues, developing trends, and future needs of this important segment" p.1). Several authors believe that CPE providers can strengthen their programs by understanding the continuum from a pre-professional through professionalization in the literature (Gilley and Eggland, 1989; Young, 1998; Knox, 2000). The process practitioners, such as Human Resource Development (HRD), use to achieve professional status in American society as professions, and the trends and issues that arise for CPE is applicable to many if not all professions, and it will add to the literature of CPE (Gilley and Eggland, 1989; Young, 1998; Knox, 2000).

The purpose of this qualitative study was to examine how the fields of Information Technology (IT), Real Estate (RE) and HRD attempt to achieve professional status in North American society through the "Characteristics Model" explained by Gilley and Eggland (1989). The three fields were chosen because they represent varying stages in the professionalization process, and the researchers believed that the findings would add to the literature on the issues and trends for the research policy and practice of CPE.

Theoretical Framework

Although sociologist have done extensive studies on professions, professionalism, and professionalization, defining the term "profession" is still a challenge (Ruona and Rusaw, 2001; Gilley and Eggland, 1989; Cervero, 1988). Three approaches have dominated the literature about professions and professionalization. First, is the process approach, it states that professions move at different speeds toward full professional status through a process. Second, is the trait approach; this approach explains that professions all share traits or characteristics in common, and professions reach full professional status when they acquire specific characteristics, and third, is the power approach, "which differentiates professions based on the power relationships held by practitioners in their social exchanges with society and individual clients" (Ruona and Rusaw, 2001, p 221).

While the terms are difficult to define, all the definitions include several elements that are consistent with other definitions of a profession (Gilley and Eggland, 1989). A profession must have four components: (1) a specialized body of knowledge, (2) a set of competencies, (3) common principles, and (4) dedicated to the public interests.

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Although there are many different definitions of the terminology in the literature, " the trait or characteristics approach has been the most commonly referenced in literature" (Ruona and Rusaw, 2001, p. 221). This approach is consistent with other definitions of a profession (Gilley and Eggland, 1989). Based on the importance of the occupation to American society, the occupation can be classified as: a profession, semi-profession, Para-profession, quasi-profession, skilled, and unskilled. Within each classification, there is a service component, "the difference between classifications of occupations is not the service itself, it is the nature of the service (Gilley and Galbraith, 1987). An examination of professions such as HRD by the characteristics orientation, can provide insight into the evolutionary process, issues and challenges faced by the profession to gain professional status (Ruona and Rusaw, 2001; Gilley and Galbraith, 1987). According to this orientation, for an occupation to be viewed as a profession in American society, it must contain eight characteristics, although the importance each occupation gives to a characteristic can vary from one occupation to another. The eight essential characteristics are:

1. A Code of Ethics. "Professional groups share a common set of knowledge and a code of ethics for the purpose of providing high-quality services to people and working toward the betterment of society" (Cervero, 1988).
2. An organized and accepted body of knowledge. Each profession must establish a set of core knowledge or theory that is the foundation professionals must learn in a profession.
3. Specialized skills or identified competencies. In addition to general concepts and theories that guide practice, Bratton (1984) stated professionals must have specialized competencies that enhance practitioners in six ways: (a) they provide practitioners with tools for self-assessment and professional growth, (b) they give a common set of concepts and vocabulary to improve communication among professionals and professional groups, (c) they provide information that can be used to develop professional programs, (d) "they can be used as a foundation for a certification program, (e) they provide employers with information to identify qualified applicants, and (f) they provide a basis for defining an emerging field of study (pp. 1-2).
4. Minimum education requirements for members.
5. Certification of the proficiency members must achieve. Gilley and Eggland (1989) stated that the certification criteria that is commonly used by these societies involves three types: Professional certification is a voluntary process that measures the competence of practitioners in a field by a professional association or organization. Accreditation is term used to describe the regulation of voluntary programs in a field, and is usually administered by an association or agency. Licensure is a required credential received by individuals and is administered by a governing group or political body in the field (Gilley and Eggland, 1989).
6. An orderly procedure in the fulfillment of responsibilities.
7. Opportunities for dissemination and discussion of ideas among members. This open communication usually happens through organizations, associations and education programs.
8. Enforcement of disciplines of the profession, and failure leads to "malpractice" and to be "out" of the professions" (Gilley and Eggland, 1989. p. 307).

Professionalization refers to "the process that professions go through to move from the status of an occupation to that of a profession in society" (Gilley and Eggland, 1989). According to Gilley and Eggland (1989), three areas are: "(a) knowledge/competency required of each member in order to participate in an occupation, (b) level of importance that society places on the occupation, (c) level of control members of the occupation place on others prior to entering and practicing the occupation" (p.300).

Continuing professional education (CPE) refers to the education of professional practitioners, regardless of their practice setting, that improves their learning and ability to practice throughout their careers" (Queeney, 2000).

The following fields are analyzed in relationship to these eight characteristics: IT, RE, and HRD and the trends and issues that arise from this study are related to research, policy and practice of CPE.

Research Questions

In order to gain insight into issues facing the field for professionalization, three general questions guided the study:

1. Why does the field want to achieve professionalization?
2. What are the issues facing the field for professionalization?
3. How could these themes be utilized to improve the policy, research and practice of CPE in the professions?

Methodology

The study used qualitative research methodology as a primary research design. The fundamental characteristics of qualitative research is its in-depth exploration of a phenomenon in its context (Denzin and Lincoln, 1994). This methodology allowed the researchers to explore the subject through formal and informal interviews, and gain new insights from the themes that emerged (Denzin and Lincoln, 1994). The qualitative research methodology was used for the research because an intensive description and analysis of the phenomenon would uncover the interplay of significant factors that are characteristic of the phenomenon (Merriam and Simpson, 1995). The three fields were chosen because they represent fields that are at different stages on a continuum towards professionalization. RE practitioners have enacted all eight characteristics, but the field has not yet reached profession status in society; HRD practitioners are attempting to reach professional status by establishing characteristics, and IT is in the beginning stages of deciding with its members whether or not the field should seek professionalization. As fields moved towards professionalization, the implications for CPE are many. By examining these three fields, it is hoped to shed light on the implications of the policy, practice, and research of CPE.

By means accorded in the methodology, 36 participants were selected through purposeful sampling (Denzin and Lincoln, 1994). Six professionals and six educators were purposely selected in each of the three fields of IT, HR and RE. Participants characteristics were: (a) 18 men and 18 women, (b) between the ages of early thirties to early sixties, (b) who had each worked in the field for over ten years, (c) each had completed a minimum of a masters degree in their field, ten had a Ph.D., and (d) all took CPE regularly.

In addition to 12 formal taped interviews, 24 informal interviews, both face-to-face and telephone, were taped with consent of the participants. The research used structured, open-ended questions to explore participants' perceptions regarding the subject matter. The characteristics that emerged from the interviews were validated through documents, journals, a literature review and discussions with other professionals and educators in the field.

After the completion of the data analysis process, another phase of data analysis, a search for themes, was begun. The process used "concept mapping" (Smith and Associates, 1990) as a diagnostic tool. "A concept map depicts in a diagrammatic form, ideas, examples, relationships, and implications about a particular concept. The center or core idea is placed at the center or top of the page, and radiating from it are a number of spokes or lines leading to other concepts related to, or indicated of the central idea" (Smith and Associates, 1990, p. 49). Concept mapping enabled the researchers to group similar examples of large concepts together, and smaller concepts were set aside until they could be integrated into the larger themes; this process allowed the dominant themes to emerge from the data.

Limitations

Since the study was limited to interviews with 36 participants from the three professions of HRD, IT and RE, the study can not predict if this information is utilized by all emerging professions. The researchers believed that the insights gained in this study should be the first step to lead to further research on the subject.

Results and Findings

As indicated in the "Characteristics Model," in order for a field to become established as a profession, it must contain all eight characteristics. The three fields are presented based on where the field is on the continuum towards professionalization, beginning with the field of RE which has received the greatest number of characteristics, to the field of IT, which has established the least criterion as a profession. This section first presents the characteristics in each field, and then it provides a summary of the major findings from the research study.

Field of Real Estate Practitioner (RE)

Characteristics of the Field. Although the RE field has established all eight characteristics, the field has not yet been recognized as a profession in American society. A real estate practitioner is licensed by the state in which he/she practices, abides by all governmental rules and the code of ethics of the National Association of REALTORS® (NAR), and must take minimum education to acquire and maintain a license. NAR (2001) "has a membership of 750,000 real estate professionals, and it is the largest professional association in the United States" (p. 1). RE has a literature base that is accepted and utilized for licensure. Many university degree programs have been established throughout the country in the last 20 years with concentrations in finance, international RE, or some specialty field in RE; however, a degree based entirely on the field does not exist. RE, as in the other fields, has attempted for a number of years to obtain a consensus of opinions to determine its body of knowledge for university programs, but studies concluded that the body of

knowledge in degree programs at universities varies tremendously from one degree to another (Rabianski and Black,1998; Epley, 1996; Weinstein, 1998). However, the field has a recognized knowledge base for licensure.

Summary of the Findings. All the participants interviewed in RE (12 out of 12) said they were interested in gaining professional status; they wanted the prestige, recognition and requirements for practitioners that comes with professionalism, and they believe that the field is doing everything in its power to establish itself as a profession. Participants said (12 out of 12) that there are two issues facing the field for acceptance as a profession: (1) The field has had difficulty in designing a knowledge base in a university that adequately responds to constant changes in specialized knowledge, technology, and expansion of its client's growth. Participants statements reflected thoughts in the literature on RE that the majority of academic research is out of touch with the practitioners and the industry, and in most cases conflicts with the information that practitioners in the industry really want (Souza, 2000; Weinstein, 1998). In order to define a body of knowledge in universities that is acceptable by all users in RE, there needs to be more research and discussion on the subject (Epley, 2000). (2) RE practitioners must continue to establish the connection of the value of their services to society as expressed in their code of ethics in NAR. "Under all is the land. Upon its wise utilization and widely allocated ownership depend the survival and growth of free institutions and of our civilization" (NAR, 2001, p. 8). Participants commended NAR's efforts to move the field towards professionalization by passing a mandatory ethics training course for members. Beginning in January of 2001, REALTORS® are required to complete one course every three years specifically in CPE in ethics to maintain a license. "The purpose of this training is not only to promote the professionalism of REALTORS®, but also to protect the public" (NAR, 2001, p. 1). Since RE practitioners are viewed by the public as more interested in making money instead of providing service, participants said that it will still be difficult for the field to reach professional status in American society.

Field of Human Resource Development (HRD)

Characteristics of Field. HRD has created Standards and Ethics and Integrity that are an important milestone of the field towards evolution as a profession (Ruona and Rusaw, 2001). HRD has professional societies and associations that promote research and interchanges of ideas from its participants: the American Society for Personnel Administration (ASPA), the American Society for Training and Development (ASTD) or the National Society of Performance and Instruction (NSPI). There are many degrees with concentrations in Human Resource Development, but they vary in many fundamental ways. Kuchinke (2001) analyzed data from 55 graduate programs in HRD; he found that HRD has not yet devised a core curriculum content. HRD has established several associations and societies to develop and implement professional certification procedures for their memberships to enhance professionalization. These programs were established to advance or increase the competency of practitioners within the field, mainly in areas of specialization as managers, instructors, instructional designers and consultants (Gilley and Eggland, 1989). Several HRD-related associations and societies have established professional certification procedures to enhance professionalization of the field (Gilley and Eggland, 1989). "The identified competencies can be used to develop guidelines, appropriate course work, internships, practicums, and independent projects" (Gilley and Eggland, 1989, p. 289).

Summary of Findings. The participants interviewed in HRD (12 out of 12) expressed a strong desire towards professionalization, and they said that the biggest obstacle for the field to become a profession lies on issues surrounding credentialing. Members need to agree on a basis for credentials, licensure and certifications. Due to the diversity of practitioners and areas of practice, generally participants (11 out of 12) believed that this presents a tremendous obstacle for the field. Furthermore, members in the field must first understand terminology, because confusion among the three terms accreditation, licensure, professional certification, creates enormous problems for practitioners. Practitioners often confuse the purpose, nature and delivery system related to each (Gilley and Eggland, 1989). Participants added further challenges for professionalization are: (1) Participants (12 out of 12) said that the field needs to better describe its service component to society to legitimize itself and its professionals. (2) Participants (11 out of 12) added that HRD must support a literature foundation that is accepted by the entire field, because "an HRD discipline around the proposed theories is fundamental to the maturation of the profession" (Swanson and Holton, 2001, p. 100). (3) Participants believed (12 out of 12) that more research should examine how to improve CPE on preceding subjects.

Field of Information Technology (IT)

Characteristics of the Field. IT practitioners are part of the newest field in this study to examine whether the field should or should not attempt to gain professional status. IT practitioners are in demand in the workplace due to recent changes in technology that impact everyone's lives. As a result, there has been a tremendous increase in number of practitioners and education programs in the field. IT has two professional organizations: The Association of Information Technology Professionals (AITP) which has established a code of ethics for the profession, and the Association of Computing Machines (ACM). There are no licensure procedures in place in the field, and practitioners do not need a degree to practice. IT has a voluntary certification and re-certification program by The Institute of Certification of Computer Professionals. Several vendors offer certification programs such as Microsoft's NT operating system, application development, or one of several Microsoft products. The classes are taught by Microsoft certified instructors and a test must be taken by participants to receive the certification; these certifications are highly valued by employers (Branigan, 1998). A degree in IT or information technology is usually required for most starting positions in the field, although degrees in associated fields such as mathematics, accounting, or engineering, are occasionally accepted (Branigan, 1998). Many degree programs have been established within the last twenty years, but there is no consensus of what needs to be curriculum. With wide utilization of technology Curry, Wergin and Associates (1993) referred to computer sciences practitioners as professionals because the field requires collegial education that is based on special knowledge, and the field serves the social good. IT is referred to by Branigan (1998), "as a discrete profession that needs for "content-related continuing professional education, applicable certification, and continuing professional education that goes beyond the specific content-related material applied directly to the improvement of computer technology skills" (p. 331).

Summary of the Findings. Of the 12 participants in IT, four were not interested in the professionalization of the field. The four participants who were not interested in professionalization of IT, stated that they had entered the field to make money, and they felt that professionalization would lead to increased restrictions and costs to do business. They said that although most IT practitioners seek a degree or credential to obtain a position in the field, the content of the field is changing so rapidly that most IT practitioners have little interest in establishing themselves as professionals if it means that they must have licensure and CPE within a subscribed curriculum. The eight participants who were interested in IT seeking professionalization said it would improve the field in the following ways: (1) IT would increase the prestige, the training required to maintain a license and the quality of education programs. (2) Professionalism would force practitioners to take CPE to learn important information as stated by Armour and Fuhrman (1993) to: (a) learn critical thinking skills, (b) create context areas that are valuable in field (ethics), and (c) and become skilled at communication skills. Participants said the two biggest obstacles towards professionalization are: (1) IT must connect the field to a service component that is acceptable by society, and (2) IT must maintain a knowledge base in a university that adequately responds to constant changes in the specialized knowledge, technology and expansion of its clients' growth.

Table 1. *Synthesis of Characteristics of Professions.*

Characteristic	Real Estate	Human Resource Development	Information Technology
Ethics/states provides service to Society	Yes	Yes	Yes
Accepts a Body knowledge	Yes	No	No
Identified competencies for all	Yes for license	Yes only for some positions.	Yes only for some positions
Minimum education Requirements for members	Yes	Yes for some positions only.	Yes, for some positions only.
Certification Process	Yes	Yes by some programs	Yes for some specialties
Process to fulfill duties	Yes	No	No
Opportunities for interchange of ideas of members	Yes	Yes	Yes
Demand acceptance of dis ciplines, failure is to be "out" of field	Yes	No	No

Conclusions and Recommendations

This section discusses the conclusions drawn from the study for professionalization and CPE.

First, generally participants interviewed (32 out of 36) believed that professionalization should be the goal for their field, and that CPE providers, professional organizations and societies need to continue to discuss the process and its implications for CPE. The study suggests that professionalization of the fields would increase the prestige and credibility for its members and insure better trained practitioners and educators who must follow ethics, principles and standards to remain in the field. Six participants from HRD expressed difficulty for AHRD to establish the necessary characteristics professionals due to the diversity of practitioners and specialties in the field. Four IT practitioners believed that professionalization of IT would decrease opportunities for work and profit, would result in unnecessary restrictions for practitioners and creation of education programs that can not keep pace with changes in the business. Second, participants (32 out of 36) stated that in order for their field to reach professional status, practitioners must support a code of ethics that clearly explains the value of its services to society and the standards and ethics that guide its practice. Participants believed that "Professional groups share a common set of knowledge and a code of ethics for the purpose of providing high-quality services to people and working toward the betterment of society" (Cervero, 1988). Participants constantly stated that in order for their field to move towards professionalization, it must define value to society though its service instead of profits. Although all three fields in this study have established a set of ethics, participants believe that the fields have not made a sufficient argument for the value of their services to society. Each field must do further research studies to define the value of its services to society, and to insure that members practice principles that guide their field. In addition, CPE should examine trends towards mandatory CPE in ethics in addition to other CPE as was instituted by RE this year.

Third, participants agreed (32 out of 36) that to establish itself as a profession, a field must subscribe to an accepted body of knowledge that has been established in universities. However, several participants said that in each field there are so many areas of practice and diverse participants, that it is an almost an impossible task to design one body of knowledge that is representative of the field. All participants felt that generally universities do not have the ability to link theory and practice and to adequately respond to constant changes in specialized knowledge, technology, and expansion of it client's growth; this thought was fervently expressed by IT participants. Therefore, CPE providers must improve how they design and update programs to link theory and practice and to keep knowledge current with practice.

Fourth, participants (35 from 36) believed that for practitioners to be successful in today's workplaces, a field must establish a set of competencies that improves the practice of professionals. They suggested that "Competencies should be performance oriented rather than academic oriented, reflect the skills of the experienced practitioners as opposed to the entry-level of individuals and be reflective of the skills of professionals such as HRD, regardless of their position, title or academic degree held" (Galbraith and Gilley, 1986, p. 28). Participants said that for CPE to play a major role in their ability for continued competence in their field, it must address the following two issues: First, "The greatest challenge facing CPE is to address the application of knowledge and skills within a practice context that must go beyond simply providing information and teaching technical procedures; it must help professionals build their collaborative judgment, reflective, and integrative capabilities, (Queeney, 2000, p. 379)." Therefore, participants believe that it is essential for CPE to teach such competencies as: team work, collaboration, problem solving, critical thinking, reflection-in-action, skills as defined by (Schon, 1987; Houle, 1980, Cervero, 1988). Cervero (1988) expressed concerns that artistry maybe different in different professions. Second, several participants (16 out of 36) stated that it would be beneficial for CPE to develop a continuum system of professional education to assist in education for professionals from pre-professional throughout their careers. This continuum could address difficult topics such as the evolution of expertise as expressed by Knox and others.

Fifth, participants agreed (32 out of 36) that a field must establish a certification process for professionals, professors, trainers and educators to establish professionalism. Generally, participants articulated thoughts in literature by Gilley and Eggland (1989) that certification programs assist in providing feedback and evaluation of the competencies and skills attained by those individuals aspiring to practice in a field. Members must first understand terminology, because confusion among the three terms accreditation, licensure, professional certification, creates enormous problems for practitioners. Especially in HRD, because practitioners often confuse the purpose, nature and delivery system related to each (Gilley and Eggland, 1989). Further arguments on the subject were: (a) Ten participants expressed there is an increased trend for practitioners to be required to take recognized programs at universities for licensure and re-licensure to be a professional. "Towards this aim, there will continued to be a movement towards a convergence to require more and more degrees for entrance to the field; many fields want to require a doctoral degree for entrance" (Curry, Wergin and Associates, 1993 p. 302). (b) Two participants said that there are other questions that must be answered around

credentials in a field are as follows: Who would credential practitioners, and would instructors need the same credential as practitioners? What would be the minimum education requirements for members?

Finally, participants expect their associations, societies, governing bodies, and schools to play a vital role in their acceptance and maintenance to professional status; this has many implications for CPE . The majority of participants (33 from 36) added that with the knowledge explosion, new technologies, and increased calls for competence and accountability for professionals, there is a growing need for professional partnerships and collaboration across work settings to add to the research, literature, and education of practitioners. CPE providers need to join together to develop new strategies with employers, schools, professional associations, and/or regularly bodies and independent providers to provide improved CPE that ensures competent professional practice (Queeney, 2000; Curry et al., 1993).

Study Contributions to HRD

Although HRD professionals come from diverse disciplines, this research supports the literature in the field that most practitioners want to obtain professional status (Ruona and Rusaw, 2001; Swanson and Holton, 2001). Due to the efforts to increase the professionalization of HRD-related professional associations and societies, as well as to the importance placed on human resources with organizations, this research provides descriptive and comparative data on issues related to the professionalization of the field. By understanding where an area of work is on the continuum of becoming a profession as set forth by Gilley and Eggland and others, educators can more clearly understand the needs of the workers/professionals in the field. This understanding should lead to the development of educational strategies and programs to help people become and maintain themselves as professionals in a new and developing profession. This research supports literature that HRD should focus on the following areas: (1) "since HRD has developed a set of ethics and standards which will aid in development as a profession, a next step in this journey is for the Academy to use Standards to further commitment for members to act upon them" (Ruona and Rusaw, 2001 p. 227), (2) HRD must examine how it can better define its service component to society, (3) HRD must support a literature foundation of theories that is accepted by the entire field. "Fulfilling HRD's performance improvement mission through building the HRD discipline around the proposed theories is fundamental to the maturation of the profession" (Swanson and Holton, 2001, p. 100), and (4) HRD must proceed to establish certification procedures for members of HRD.

As people in a field such as HRD take the painstaking steps to bring an area of work into professional status, the education necessary for professional entry, professional maintenance, and professional growth changes dramatically. Professional entry education requirements change from no requirements to certificate or degree requirements. In many cases multiple certification and multiple degree requirements are required to enter a new and developing field. These educational changes set forth new expectations within the field and within the professionals themselves. Certification and degree requirements lead to the need for HRD via CPE for re-certification, licensure, and re-licensure. For the millions of people involved in RE, IT and HRD, transformations in the field will require more testing, more education, and more credentialing.

The road to professionalization is complex and demanding for the people involved in the transition of an area of work to a profession. The complexity can involve components that don't appear in the literature in any big way yet are very important to the development of a profession. For example, the field of information technology has mystery attached to it and; therefore, may move much faster into full professional status. Fields such as real estate move at a much slower pace because all of us at one time or another become a client and receive the services of these workers/professionals. This familiarity can bring about a condition in which there is little respect for people we have to work with frequently than judges, clergy, professors, and physicians.

However, it is estimated that billions a dollars per year are used on education of these groups from pre-continuing education through CPE, attention must be paid to establishing education programs that will aid all fields in practice (Cervero, 2000; Knox, 2000). As HRD continues to strive for acceptance as profession, the information from this research on other emerging professions can provide valuable insight to the research, policy and practice of HRD.

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Managers' Needs and Expectations of Management Education

Carole Elliott
Lancaster University, UK

This paper presents the findings of the first-stage of qualitative longitudinal research into the relationship between managers (as students) and educators. The paper discusses the needs of six managers on a part-time MBA programme, and their expectations of it. The findings that emerge pose a number of dilemmas for this particular form of adult education, including a questioning of the effectiveness of large-scale programmes of management development for individual managers that occur away from the workplace, and the role of assessment for adult learners.

Keywords: Management Education, Needs and Expectations, Qualitative Research

Within the last 10 to 15 years there has been a debate within UK and European management education circles concerning the purposes of management education programmes; particularly generalist programmes such as the MBA. Alvesson and Willmott (1992) position the Critical Management Studies (CMS) field as running counter to disciplines of management that "are generally understood to be devoted to the (scientific) improvement of managerial practice and the functioning of organizations" (p.1). CMS by contrast seeks to question "the wisdom of taking the neutrality or virtue of management as self-evident or unproblematical" (p. 1). Those who locate themselves within CMS emphasise the necessity of questioning the received wisdom of traditional management knowledge and practices given the influence that managers as a social group exercise. It challenges, from a number of theoretical perspectives, the existence of a body of objective scientific knowledge within disciplines of management that purports to be morally neutral and universally applicable. Critical Theory provides the basis for many contributions to it, but analyses from Foucaldian, poststructuralist, Marxist and feminist perspectives are also common. Their point of commonality can perhaps be seen to lie in a common 'agenda', described as "an agenda for research, teaching and (indirectly) organizational practice that understands management as a political, cultural, and ideological phenomenon" (Alvesson and Willmott, 1992, p. 8).

The research that this paper describes arose out of a CMS perspective, but approaches it from the position of individual managers who choose to undertake a management education programme, the content of which has been so heavily critiqued within the CMS literature. Little attention so far has been paid within CMS to managers as individual students. Managerial identity in general, with a few exceptions, e.g. Fox (1987), Watson (1994), Pavlica & Thorpe (1998), Watson & Harris (1999), has remained essentially hidden beneath their 'role', i.e. what they are reported to do as paid-for work. Management as a practice, as a technical and instrumental activity, has predominated. Managers have therefore come to be seen in this light, this characterization reaching its (most famous) nadir in Jackall (1988) and MacIntyre (1985), their individuality here having been completely obfuscated by their role. These characterizations have provided part of the contextual background for my research, which from the beginning was concerned with individual experiences and responses to an MBA programme. It is only from a position such as this, I argue, that CMS can justifiably support its assumptions concerning management education's role and purpose, particularly as perceived by those who seek to participate in it.

Whilst the research focuses on the relationship between students and educators within management education, the findings that arise are equally pertinent to HRD. Indeed, it is partly because HRD has not addressed the management education phenomenon that I bring this paper to the conference. I do not have the space here to discuss the artificiality of constructing boundaries between HRD and other areas of research, but what I hope this presentation of a specific student-educator relationship will do is to raise awareness of the expectations that adult education can create.

Purpose and Research Questions

This paper's purpose is to share the findings from the first stage of a longer empirical study. The research was undertaken to explore the relationship between managers (as students) and a process of management education. Specific objectives that were posed in this first stage of a four-stage research process were:

1) To discover why, and how, managers had embarked on a management education programme;
2) To explore their work-life leading up to the point they started the management education programme;

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3) To find out about their previous experiences of education.

Subsequent stages of the research address in more depth issues raised during this first stage, including: managers' responses to programme content and design (including assessment procedures, and managers' perspectives on the transferability of their MBA learning to the workplace); the nature of the reception given to managers in their workplaces by colleagues not engaging in processes of higher education, and managers' future career aspirations.

Theoretical Framework

When designing the research approach I wished to take, my intention was to be lead by the data that arose from the findings. When I began I therefore did not have a particular organising framework against which I would analyse the findings. This decision, as a consequence, requires me to place my own findings in the context of other theoretical perspectives once the analytical process has been completed.

Methodology

This piece of research was exploratory in a subject area that has hitherto received little attention. The findings that I present in this paper arose from qualitative face-to-face interviews with six managers, interviewed separately. These took place within the first three months of a part-time MBA programme in a UK university. Whilst the interviews might be described as semi-structured, in that I had a number of key questions I wished to explore with interviewees, these questions were predominantly used as prompts to facilitate the conversation in this first meeting with the managers. My aim within each interview was to follow as much as possible the direction in which the interviewee wished to take it. That is, I wished the interview to be more akin to a conversation, in which meaning arose out of the dialogue between the interviewee and myself. I therefore attempted to approach each interview in isolation. That is, none of the interviews were analysed until all six interviews of each phase had been completed.

The conceptualisation of a dialogical process (in this case the interview setting) as creator of meaning is crucial, not just to the choice of method to gather empirical data, but is indicative of the epistemological basis of the research as a whole. That is, it is located within a social constructionist framework that recognises the influence of the research process on the nature of the data that arises. As such, it recognises the influence of the researcher on the researched, acknowledging that the research intervention is constructed not just by the researcher, but arises from the interaction between researcher and researched. It is characterised by the notion of reflexivity that requires researchers to be aware of the impact of their interventions. For example, in this study the managers knew I worked for the university where they were studying for the MBA (although I did not work on the MBA programme), thus I was conscious that this might affect the nature of the conversation between us. I continually posed myself questions such as how open would they be in critiquing the programme, or even the educators who worked on the programme? Another question focused on my own practice as researcher. I had to acknowledge that my other role as educator within the same university would impose certain assumptions on my conduct within interviews and my subsequent analysis of them.

Analysis

Recognising that my dual role as educator and researcher within the same institution imposed certain constraints, alongside the longitudinal nature of the research, I chose what might be described as a grounded theory 'approach' to the analysis of the data. That is, unlike a 'pure' grounded theory analysis, I did not begin the analysis with the belief that I would be able to do so completely free of theoretical assumptions. This would run counter to the epistemological basis of the research. In trying to manage the tension between a rejection of hypothesis testing against the recognition that the researcher brings certain assumptions to any empirical research intervention, I followed Hycner's (1985) guidelines to the phenomenological analysis of interview data. This involves several steps: transcribing the interview; bracketing as much as possible my own meanings and interpretations; listening to the interview for a sense of the whole; delineating units of general meaning; delineating units of meaning relevant to the general research question; determining themes from clusters of meaning; writing a summary for each individual interview. I added the extra step of comparing themes that arose within each separate interview, looking for commonalities and dissonances.

Upon completion of each phase of interviews (the findings presented in this paper arise from phase one only; there were four phases in total), I analysed the data before I interviewed managers in the next phase.

Findings: Routes to the MBA

I will now outline themes that arose from the first set of interviews, particularly within the context of questions regarding their journey along the path to the MBA. I describe these as: developing the work self; validating career choices; the business of organising; work as shaper of educational choice; plugging the gap, and anxieties. The theme that was common to all managers concerned the development of the working self.

Developing the Work Self

Broadly, the interviewees' educational experiences can be described as either having been 'front-ended' by tertiary education prior to entry to the workplace, or a more evolving experience that has occurred mostly in response to work-based activities. Having recognised this as a general pattern, upon a closer examination of the interviewees' working and educational lives we can see that the picture is much less clearly defined than this. So, even though one manager (CD) had entered the workforce with an undergraduate degree, and one seemingly suited for the type of work he was to be engaged in, he had undertaken another form of education to develop himself for his work role. This theme of self-development as a response to work activities, and as a means to improve oneself in the performance of these work activities, is a theme common to all interviewees. Indeed, this was occurring long before they had considered an MBA as the next stage in the self-development process. Also striking is the fact that in all cases the interviewees sought to develop their work selves through education of their own accord. MT describes his reasons for choosing to study part-time for a law degree:

> *To cut a very long story short, I got a job reluctantly. I didn't want to go - (I went) kicking and screaming - as a decision maker. And on traffic matters originally and eventually I became more expert and got involved in criminal offences and had good working relationships with CPS (Crown Prosecution Service), got on quite well, and they said to me – "you ever thought of doing this as a job?" I said well 'yes'. "Why don't you do a law degree?" That's how it came about and I said 'yes, I think I will'.*

Indeed, some even faced opposition from line managers when they expressed a desire to do so. PD describes his experience:

> *That was my choice* (to do his first degree in mechanical engineering on a part-time basis). *Nobody mentioned it. And actually at the time, my boss at that time – he was Oxford or Cambridge – from one of the two, couldn't really understand why I was doing a degree and probably thought it was insignificant anyway because it was from a red-brick university. So again, it was my decision and really there was no support for what I was doing so I had to do that.*

CS's decision to move from being a practicing nurse to a nurse tutor required her to follow a teaching course. When I asked her reasons for doing so, she answered:

> *Well, I was health visiting, and I was dealing with people who were diabetic and there was a lot of teaching within that, teaching groups, teaching individuals, teaching staff, and it suddenly occurred to me that that was what I really liked doing and that was what I was good at. And from there I just decided that I would do a teaching course. So I did. I have no regrets. I enjoyed it and I have enjoyed being a teacher.*

For only two of the interviewees was the MBA the first experience of a formal course of education since they had entered the workforce. JB was the most formally qualified of the interviewees, being the holder of both an MSc and a PhD, and had been in salaried employment for just four years. JW held a first degree and a PGCE and was currently working as a teacher within higher education in a management school.

A formal educational qualification as an outcome of working experiences was common to four of the interviewees, they were now brought together by a programme of management education. The diversity of work and educational experiences was notable, even within a group of six. The question as to how individuals with such wide-ranging experiences could all be undertaking the same management education programme is an interesting conundrum. I think it actually lies at the heart of the critiques from CMS concerning the role and nature of management education, and is a debate that needs to be more fully informed from the perspective of participants in these programmes.

Before doing so I would like to present in fuller detail some features of their working lives so far, focussing particularly on the choices and decisions they made regarding the shaping of their life in their organisation(s).

Validating Career Choices

In asking about interviewees' working lives up to the point of beginning the MBA, I wanted to discover the sorts of working backgrounds somebody choosing to do an MBA might have. I did not want only to discover the basic facts that could be gleaned from a CV, I wanted to hear them describe these working backgrounds and how these had lead them to the MBA.

My assumption before I began the interviews was that each interviewee would have worked for at least two, possibly three, organisations. My views had been formed by knowledge of the changing nature of the implicit employment contract that began in the 1980's following organisational 'downsizings', 're-engineering', and layoffs that has changed the central organizing principle of individual-organizational relations. This has lead to regularly expressed mantras in the media and within the academic literature concerning the death of 'one-company man', and the demise of a job for life'. Correspondingly, the working patterns of 'high flyers' (which those undertaking a part-time MBA might reasonably be considered to be) are characterised as generally involving stays of 2-3 years in an organisation before moving out, and 'up', the career ladder. This assumption was not borne out by the experience of the interviewees and so what became more interesting – and this arose only through the data analysis process – was individuals' validation of the decision, or more specifically series of decisions, that lead them to stay in the same organisation. I want to focus on this theme because it is interesting from a number of perspectives. First, it provides a mirror to contemporary perceptions of careers as being 'boundaryless'. Second, when analysing the interviews on paper, as well as listening to my tape recordings of them, I came away with the impression that interviewees felt the need to justify their decision to stay in one organisation. This was strongest amongst interviewees who worked within large organisations. They did so by explicitly pointing out the diversity of roles and types of working activities it was possible to engage in within these organisations. Those working in large organisations provided similar responses when I asked about their plans once they had completed the MBA; that is, did they plan to stay in the same organisation, or did they see the MBA as facilitating a route out of the organisation?

Following a question from me in which I simply wanted to verify whether he had worked for the same company since leaving school, PD replied:

> *Seventeen years, man and boy. I don't know, but I think the company, I think the company is good to work for anyway but it has been – so much has happened in that – I was doing an apprenticeship so that kept me there for four years, then I got the job in the design office, so really it is a change. And I enjoy the change, so I stayed for a couple of years. But before that couple of years was up, I started my degree so that kept me there for another five years. And then after the degree I got promoted and I have had another promotion since, so things seem to roll over and I have worked in different areas within the design office, or the project office as it is, so it's sort of – there's no time I feel that I've spent a lot of time stagnating – and that's probably why I don't feel as if I needed to move, because things are continually moving.*

In the process of a much longer passage in which he described the various work roles he had performed since entering an organisation that re-processes nuclear waste, as a graduate management trainee, CD stated:

> *I was a shop(floor) manager proper in fuel storage points – that's where I really cut my teeth I suppose, in Ops Management, and it's from there I went into 'Lowe' commissioning the chemical plant then, so that took me six years to get a Chemical Engineering job. But there we are, it was all good experience on the way and it's very handy I think, albeit limited to 'Byacar' – it's such a big place anyway, I have got a good grasp of 'Byacar' – whereas some of the people have just got 'whatever they do', which is useful ... it's just another way of broadening your horizons a bit. Not that that was a conscious plan at the time but with hindsight it is quite good really.*

Choosing the MBA: The Business of Organising

The reasons each interviewee provided for undertaking the MBA did vary, and all stated a variety of reasons for choosing to do so. Nevertheless there were some overarching themes. A response common to two interviewees who worked in the public sector framed part of their decision in terms of their work, and the work of their organisation, in the light of business (that is, profit making organisations) methods of organising.

When I asked CS to describe the nature of her job more fully, she explained:

> *We have very few HEFCE-funded courses. We have to get out there, basically, into the market-place, and earn our money. You know, bring the business in.*

Later in the interview, she described the 'problem' the Faculty she was employed in had with her role:

...the rest of the Faculty, has a great problem with my role in that they don't even now, sort of two years on, really – well, I think they do understand the funding stream – but they don't understand how tenuous it is and how, how much competition there is. And what will happen if we don't actually get the, keep the business that we've got and generate more business. ...

In response to my question about the number of student places funded by HEFCE, she replied:

...we have service level agreements with the (Health) Trusts so we do have a certain level of guaranteed business but in 1999 that is going to go. And you know, we are out on the old market.

As part of the interview in which MT was discussing his reasons for undertaking the MBA, in preference to going further with his legal studies, he replied:

... it's business training you need now ... so I have done the wrong degree really in some ways.

When I checked with him his thoughts on why he needed business training, his view was:

It has to happen. I mean, there's been, hasn't there, up until now, my understanding is we had a very narrow look on business management and business cultures applied to profit making commercial organisations. 'Why should they? Because they ... you know, wherever there's money involved, wherever there's strategy involved, wherever there's an efficient method of working you know, relating your business or company to the environment we are working in, those rules apply to whether it's commercial or non-profit making. And that's why we've changed, and the phenomenal cost of policing.

Work as Shaper of Educational Choice

What was a far more common response continues the theme I identified earlier in the paper that saw work as an impetus and shaper of educational choice. Most had relatively recently moved into new work roles, and most were seeking a body of knowledge and skills to support them in these new roles. Some were quite explicit about the knowledge and skills they hoped to gain. JW and CD for example, were looking for different ways of thinking through former and current work experiences.

Each interviewee had chosen personally to come on the programme, and some referred to the fact that they did not actually need the MBA to perform their work role. Rather, it was undertaken for a variety of reasons linked to their self-development needs, including – stated most explicitly by CS – as a means to increase confidence in performing her role.

JB had been working in product development, but was about to move into a marketing role, where he was looking to obtain some commercial experience that he felt he needed. His view was that he had come into his organisation too academically qualified, and believed the organisation had probably taken a risk when they appointed him, as "he could have been the archetypal boffin". He had proved that he wasn't and explained his reasons for doing the MBA:

I must admit my personal reasons for doing it are not to get three letters. They're to get the training.

When I asked whether this meant it was for personal development reasons, his reply was:

Yes, absolutely, absolutely. You know, I couldn't condone sort of doing a course, and just getting letters and not actually getting anything out of it.

He saw this approach to the programme as having some negative consequences however:

So, I think probably I'm putting too much into the assignments, or certainly too much background reading, which may cause me problems.

PD saw his move into a management role as the way he wished to develop his career, and believed the MBA would help him do this. His boss had wanted him to look at specialist Masters course in the field of mechanical engineering, however he stuck with the MBA as:

... if I ever wanted to get beyond that (a level above his current position) I would then have to, at a later date, come back and do an MBA. So the MBA offered me the managerial type of (or I felt it did, I have yet to fully understand what it is going to offer me!), but I felt with my limited knowledge that it would give me an advantage, ... it gave me an advantage to develop a career from where it is now.

In contrast to JB and PD, CD explicitly mentioned the management roles he had been performing for the last eight to nine years at Byacar. He was seeking to move away from working in operations after a ten-year period, and was looking to the MBA to:

... look at things you don't normally look at in your job; i.e. think at another level, which makes you more adaptable and more useful to the organisation if you like.

He didn't particularly see the MBA as being able to help him become a better operations manager. The one way in which it could do that would be to provide him with better "people skills":

And I don't get any of that off of this, other than sort of anecdotal help from other people in the lectures.

Similarly to CD, CS did not think she actually needed the MBA to do her current job and had not begun the MBA with a view to leaving her organisation. Her boss had remarked to her:

Do you really want to do this? You function perfectly well.

However, CS felt unprepared for her work both professionally and academically, and

... because the market is changing and because I think HE is changing really, and because I want to stay employable, I decided that I would do something about it.

In response to her boss's comments above, CS explained:

... I talked to her about it and I said I think it is to do with the way that I feel about what I am doing and the way that I feel about my position with people who are also doing the same sort of jobs as I am. I want to able to hold my own.

She felt the MBA was giving her more credibility with colleagues, and even after the first module thought:

I've looked at things differently just from doing that, and I feel that I, I don't know I just feel as if I've got something to back up what I am trying to say to the staff. Nothing that they would notice, I don't think, but it's the way ... it's the way I am looking at things and the way I am presenting things and the way I feel inside.

JW had worked for seven to eight years in business consultancy, and thought he understood in his "own language" the issues and processes he had been dealing with. His reason for doing the MBA was then:

... to try and learn some of the, I think, some frameworks on which to try and take five or six years' experience and say well, how does this all fit together picture ... and so what I hope it will do is provide me with a much better, not necessarily strategic, but a much better overall view of the business world.

MT described his reasons for doing the MBA as:

I want to do what I'm doing now more successfully, more professionally. The real reason is that I do genuinely want to improve my knowledge of business management. That's the truth of it.

Plugging the Gap

From this section we can see that the MBA is perceived as being able to fulfil a variety of needs. PD most clearly, but also JB, saw it as being particularly useful for their career development. It was seen to open up opportunities for career development, development here framed in terms of being an expansion of experiences, rather than upward promotion. This can be seen by their desire to seek further knowledge and skills. The variety of needs the MBA is being required to fulfil ranges from developing conceptual thinking skills to providing specific knowledge about private sector methods of organising. Whatever the specific reasons, all interviewees perceive a feeling of absence of some kind that needs to be rectified. The most common absence is of knowledge. CS is the most open about the MBA's potential to provide her with more credibility amongst colleagues, but it also lies beneath the surface of other comments. PD is the one most clearly moving into a management role, in this case from an engineering background. But he would still be moving into this role even without the MBA. The MBA was not a precondition for this change in role; indeed his boss suggested that he consider pursuing a specialist Masters degree in his disciplinary field. Both JB and CD were about to move, or had just moved, to new work roles in their organisations. They too however, had been operating as managers before that, including responsibility for a number of staff. One of the key issues arising from the reasons given by interviewees for pursing an MBA is the sense that they lack something.

An awareness of the contingent nature of managerial work, in which a predominant role for managers lies in the management of meaning (Watson, 1994; Elliott & Reynolds, 2001; Cunliffe, 2001; Shotter & Cunliffe, 2001), raises our awareness of the uncertainty of managers' lives. The findings arising from this research highlight that this uncertainty can overflow into perceptions of absence, or perhaps we can even say inadequacy that then carries some managers to seek succour and refuge in a university-based programme of management education. Whilst the majority of CMS writers recognise the complex and contingent nature of managers' lives, they have not considered the consequences and impact of this lack of certainty upon management education and upon educators. If this particular manifestation of uncertainty identifies, at least in part, managers on management education programmes then this correspondingly has implications for the management educators from whom they are seeking guidance.

Anxieties

There are other concerns amongst the interviewees that we can perhaps categorise under the 'insecurities' heading. The ones I will present here are more specifically related to perceptions of the expectations placed on them by the programme itself. Many of these were unsurprising in that they related to concerns about the amount of time required to complete coursework, and MT and CS particularly were concerned about neglecting their families. MT states:

> *But I think about it (the MBA) with the kids, if something happened to them or happened to me, I'd regret it. ... So, I've got to be honest about it, yeah, but when I'm at Lancaster, particularly when I hear the lecturers talking ... they just attract my interest, I've got to say. So when I get there, I want to be part of it, you know.*

One of PD's anxieties concerned the switch he was making from an engineering background to the MBA in which he had identified (the interview took place during the first module on Strategic Management) the lack of a certain answer:

> *You get a few possibilities out, and those possibilities might be right, they might be wrong, they might work, they might not work. But it's not, it's not whatever you want to call it, it's not really the definitive answer, which engineering is. So it's moving completely away from what I've done before. It's very sort of in-depth, an analysis, and coming out with opinions rather than doing some calculations and coming out with a figure, an answer.*

For CS, it was the high expectations and high standards she had for herself.

> *... and even though I sit here and say, I don't care what mark I get for my assignments as long as I pass, that is a lie. That is a lie, I would be devastated!*

Underpinning CS's concern about level of marks lie questions about marking criteria and expectations from educators about what is required from a piece of coursework. JB felt he needed this information in order to judge his own understandings:

> *I'll have less anxieties after the first assignment has been marked and I'll know exactly whether I'm pointing in this direction, or whether I'm pointing in this direction. Erm, you know, in terms of what's required. I'm finding it quite difficult to ... it's different to a report I'd write in industry.*

We can detect a certain air of vulnerability from these responses. Concerns about assessment alongside interviewees' search for missing knowledge, skills or belief in their abilities as mentioned earlier, reveal a heady brew of expectation.

It is beyond the remit of this research to ponder whether the particular group of management educators working on this programme were aware of any one of these factors. But what it can do is to consider the relationship between managers and management educators through the perspectives offered by the six interviewees. A number of issues arise from this. First, it reveals perspectives on the processes of management education – processes traditionally managed by educators – from the position of the manager-student. Second, and implicated in CMS's hitherto relative lack of attention to management education processes (Reynolds, 1999), it considers the objectives of management education as perceived by the manager-student. That is, what they expect to gain from engaging in this particular type of education programme. Third, the level of reflection from manager-students on pedagogical processes prompts significant questions around CMS's claims against management education.

Concluding Thoughts and Implications for HRD

This research into managers' motivations for undertaking a management education programme, and their expectations of it, raises a number of questions for educators and for HRD practitioners. As a process of adult education it reminds all educators that each individual adult, as student, returns to education with needs and expectations not always transparently evident to educators. Indeed, it is only by adopting an idiographic research approach that it is possible to begin to become aware of these needs and expectations. The findings reveal the large amount of commitment expended by managers in order to develop themselves for current and future work roles that reminds educators of their enormous responsibility in the relationship with adult learners, and warn us that assumptions about them require continuous challenge. The questions this raises for HRD include: the effectiveness for individual managers of large-scale programmes of management development that occur away from the workplace; the validity of more quantitative approaches to needs analysis that generalise and thus possibly miss the needs of all. Also questioned is the appropriateness for adult learners of methods of assessment generally based on conventional methods of assessment for undergraduate students. In subsequent phases of the research I will explore with managers their responses to systems of assessment. This is a little explored area, but asks educators whether

current ways of assessing learning are fulfilling adult learners' needs, or rather simply fulfilling institutional bureaucratic demands.

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Predicting Future Skill Needs in the Clothing Sector

Ian Taplin
Wake Forest University, North Carolina, USA

Jonathan Winterton
Groupe ESC Toulouse (Toulouse Business School), France

Ruth Winterton
Eldwick Research Associates, Bingley, UK

Clothing enterprises are still experiencing chronic skill shortages, despite the continued contraction of the sector and evidence that training is associated with business success. This paper reports on a project predicting future skill needs in the British clothing sector undertaken to implement the Government's policies to avert skills shortages and remedy skills gaps.

Keywords: Forecasting, Performance, Recruiting

Recognising that the UK workforce is inadequately qualified in comparison with major competitor nations, the Labour Government that took office in 1997 introduced several initiatives to address future skills needs. The Skills Task Force was established to assist in developing a National Skills Agenda and the Learning and Skills Council was established to develop more coherence in post-compulsory learning. At sector level, National Training Organisations (NTOs) were charged with responsibility to establish mechanisms for forecasting future skill needs (*Skills Foresight*). This paper reports on such an initiative in the British clothing industry, which the authors were commissioned to undertake on behalf of CAPTIB Trust, the NTO for the British apparel manufacturing industry.

Theoretical Framework

The theoretical underpinning of this project derives from two sources. The first is an ongoing analysis of contemporary change in garment manufacturing (Taplin and Winterton, 1996; 1997; 2001) which provided a framework for examining the trajectories of restructuring and their impact on skills. The key drivers of change (product market fragmentation, liberalization, leading to import penetration, and de-regulation, leading to growth in the number of SMEs, which further intensifies competition) are represented as a range of external environmental influences acting upon clothing enterprises. Market fragmentation is driving the demand for quality and creating more demanding delivery requirements from retailers, while at the same time creating gaps in the market that manufacturers and importers can exploit. The globalisation of clothing markets, promoted by liberalisation in phasing out the Multi-Fibre Agreement, will act as an impulse that accelerates the restructuring of garment manufacture in high wage economies. Similarly, deregulation from the mid-1980s provided a permissive environment for start-up of SMEs and these offered similar low-cost, flexibility production to manufacturers and retailers by replicating within the indigenous industry some of the characteristics of overseas enterprises.

These external impulses impose limitations to the strategies that enterprises can adopt, modifying and accentuating the three imperatives that form intermediate objectives for enterprises in any market economy: quality, delivery and cost. The impulses having the most dramatic effect on the clothing industry are undoubtedly those that are exacerbating price competition, especially the growth of import penetration, promoted by liberalization. The growth in outward processing trade (OPT) reflects an inevitable response to overseas low-wage competition, whereby UK manufacturers can retain market share in the face of imports by outsourcing production. An alternative strategy involves sub-contracting production cut-make-and-trim (CMT) units competing largely on cost for a shrinking market. The delivery imperative is also addressed by sub-contracting production to small shops performing only a limited range of sewing operations and to home-workers, or through quick response and just-in-time methods that reduce production time and inventory. The quality imperative has led quality initiatives and team working, and forms a key part of niche marketing whereby companies have sought to exploit market fragmentation through focused differentiation.

The second source of theoretical underpinning is in the new skills strategy of the UK Government. The three

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reports of the *Skills Task Force* (STF, 1998; 1999; 2000) supported with research by the *Skills Task Force Research Group* highlighted skills shortages and skills gaps in the UK economy. As a key part of the new skills strategy, NTOs were charged with responsibility for predicting future skills needs at sector level through a *Skills Foresight* approach, elaborated in guidance from the NTO National Council (NTONC, 1999). This paper reports on the exercise undertaken on behalf of the clothing sector, which employed the theoretical framework and methodological approach laid down for *Skills Foresight*.

Research Questions

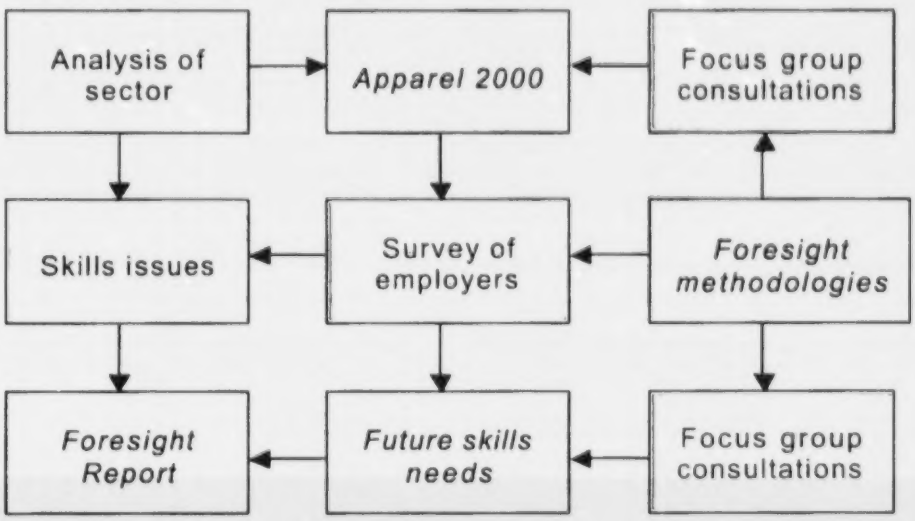
The central question addressed by the *Skills Foresight* exercise was: 'In what skills areas of the clothing industry are there likely to be skills shortages and/or skills gaps in the future, and which of these are likely to be the most detrimental to the industry's future success?' This question, set by Government to all NTOs, was reformulated into three sub-questions, operationalised through the methodology described in the following section:

- What skills shortages and gaps currently exist, and which have the most detrimental impact on the sector?
- What changes are occurring in the sector which impact directly or indirectly on skill levels?
- How is the current picture of skills shortages likely to change in the future?

Methodology

The methodologies adopted in *Skills Foresight for the Clothing Industry* were a product of the good practice principles identified from the review of other sector *Foresight* studies and the limitations imposed by the resources available. The resultant methodological approach recommended and adopted comprised three main elements, each associated with an interim report. Figure 1 shows the relationship between the different elements.

Figure 1. *Methodology for CAPITB Trust Skills Foresight*



Source: Winterton, J. and Winterton, R. (2001) *Skills Foresight for the Clothing Industry*, CAPITB Trust Skills Foresight, Bingley: Eldwick Research Associates.

Each element of the *Skills Foresight* project resulted in an interim report to CAPITB Trust. The analysis of the sector, resulting in the first interim report *Apparel 2000: The UK Clothing Industry in Transition* (Callaghan, Taplin and Winterton, 2000), identified a number of drivers of change and anticipated changes in skill needs, which were

raised in the employer survey and focus group consultations. The review of methodologies used in other sectors, summarised in the second interim report, *Foresight Methodologies* (Leman, Winterton and Winterton, 2000a), influenced the approach adopted in the two main data gathering activities, the survey and consultation exercises.

The survey was undertaken as a telephone questionnaire administered on our behalf by a professional organisation with a target of 1,000 respondents, representing about one fifth of the number of enterprises in the sector. In addition to establishing a profile of the enterprises involved, the survey elicited a wide range of information about workforce characteristics, recruitment and recruitment difficulties, workforce skills (especially gaps and actual or anticipated shortages), future change drivers and their expected impact on skills and training activity. In the event, 1,022 enterprises participated in the survey, which covered 20,843 employees in the clothing industry, representing approximately 20 per cent of the estimated total number of employees. Findings from the employer survey were summarised in the third interim report, *Future Skill Needs in the Clothing Sector* (Leman, Winterton and Winterton, 2000b).

Discussions in focus group consultations with employers were structured to validate the findings from the analysis of the sector and the employer survey, as well as to elicit further information from employers as the beginning of an iterative process of forecasting skills needs. Validation with sector representatives was the main means of ensuring that skills forecasting in clothing was thoroughly grounded in the specifics of the sector. The validation process began with early dissemination at a *National Clothing Conference* and continued through discussion in focus groups of the change drivers outlined in *Apparel 2000* and of our interpretation of the LMI survey results in *Future Skill Needs*. In all, six focus groups were held across the UK in November and December 2000 and supplementary information was obtained from 6 individual interviews with employers in London. Excluding the Conference, the consultation process involved a total of 31 employers and 4 industry advisors.

The final report, *Skills Foresight for the Clothing Industry* (Winterton and Winterton, 2001) integrated the analyses of the three interim reports with the findings of an employer consultation exercise involving focus groups and individual interviews. The final report was used by CAPITB Trust to develop a *Workforce Development Plan* for 2001-2005 (CAPITB Trust, 2001).

Results and Findings

The research questions outlined above were addressed through developing a substantial amount of labour market information, only a small fraction of which can be presented here. Rather than presenting the results as a series of answers to the research questions posed at the outset, it is more logical to deal with the main findings from the different elements of the exercise integrated together thematically under the following headings:

- The clothing industry in transition
- Labour market characteristics
- Recruitment and recruitment difficulties
- Workforce skills
- Training activity

The Clothing Industry in Transition

The sector analysis identified key drivers of change in the clothing industry (deregulation leading to intensified international competition and increased imports, product market fragmentation leading to smaller production runs and shorter delivery times, and consumer demand for quality and value). In the employer survey, respondents were asked to identify which of these (or other) factors were likely to affect their business in the future. The five factors rated most highly were: import penetration; lack of skilled staff; changes in consumer tastes; quality issues; and local price competition. The survey captured employers' views on the levels of significance of each factor and the findings indicate a generally high level of concern about almost all future influences, especially import penetration, lack of skilled staff and quality issues. Training issues were relatively neglected in employers' responses. Import penetration was rated by the largest number of respondents and with the highest significance rating among all the given list of possible factors. One third of employers regarded quality issues as significant to the future of their business.

Employers also felt strongly about the impact of lack of skilled staff on their business in the future. However, it was surprising that approximately one third of those currently experiencing some kind of skill shortage (current vacancies, experience of hard to fill vacancies or skills gaps) did *not* rate lack of skilled staff as having an impact on the business in the future. The proportion of employers citing lack of skilled staff as having a major impact on the future of the business increased with firm size from 32 per cent (under 5 employees) to 60 per cent (25-99

employees). For the largest firm size of at least 100 employees, lack of skilled staff was cited by 53 per cent of respondents.

Although a large proportion of respondents regarded lack of skilled staff as important, far fewer chose the two factors addressing training issues. Compared with the 42 per cent of employers who perceived future skill shortage to be significant to their business, only 18 per cent thought funding for training was important in the future and only 17 per cent mentioned availability of training provision.

Employers were asked about skills that are lacking in parts of the present workforce and the main skills priorities were found to be similar across all the occupational areas, demonstrating that all respondents envisage skills priorities for the immediate short-term future to be very similar to present shortage areas. It is noticeable that IT is perceived as having a slightly less prominent role in the future, for all occupational areas, and has disappeared from the top three for trainees. Job-related skills on the other hand have become even more critical than before.

Labour Market Characteristics

Apparel 2000 traced recent changes in total employment in the clothing industry, comparing these with manufacturing as a whole, while the employer survey reported in *Future Skill Needs in the Clothing Sector* provided an up-to-date snapshot of the sample surveyed. Combining the two analyses provides an overview of the employment structure, demographic profile and occupational structure of the UK clothing industry.

While employment in the UK clothing industry has fallen since 1973, the rate of contraction accelerated in 1999 as production was increasingly sourced from abroad due to the strength of Sterling. Official projections for the sector (textiles and clothing) have consistently under-estimated the decline. The survey covered 20,843 employees in the clothing industry representing approximately 20 per cent of the estimated total number of employees. Around 60 per cent of employees in the sample were drawn from three regions: the North West, East Midlands, and West Midlands; 23 per cent of employees in the sample were in Yorkshire and Humberside, London and Scotland; 17 per cent were distributed amongst the remaining six regional areas.

In demographic terms, clothing remains an industry with a mainly female workforce: women account for 70 per cent of the workforce in the official statistics (the reverse of manufacturing as a whole in which men account for 70 per cent of the workforce) and represented 69 per cent of the workforce in the survey. In the official figures, 16 per cent are part-time while in the survey the corresponding figure was 18 per cent. In terms of occupational structure, 61 per cent of employees were classed as operatives or manual workers, 16 per cent were in managing or supervisory occupations, 4 per cent were technical specialists and 1 per cent trainees.

Recruitment and Recruitment Difficulties

Respondents in the *Skills Foresight* survey were asked about recruitment methods, future recruitment plans, current and past vacancies and recruitment difficulties. The number employed by the 1,022 companies in the survey had increased by 5 per cent on the previous year's figures, with 37 per cent of companies accounting for the increase. These firms represent 73 per cent of firms with current vacancies, 71 per cent of those with hard to fill vacancies and 60 per cent of those anticipating recruitment difficulties. The key recruitment methods are: word of mouth (67 per cent); the Employment Service or Job Centre (42 per cent); and local press advertising (42 per cent).

Of the 1,022 firms in the survey, 17 per cent (33 per cent of the workforce), currently had vacancies; 22 per cent (35 per cent of the workforce) had experienced difficulties in filling vacancies. In the 247 firms that expected to recruit more staff, 64 per cent referred to sewing machinists; 10 per cent sales staff; 9 per cent hand-craft-tailors; 6 per cent cutters; 5 per cent designers.

Among the 220 organisations that had experienced difficulties in filling vacancies, 177 anticipated further difficulties. Recruitment of sewing machinists had caused most difficulty (73 per cent) and was expected to continue to do so in the future (68 per cent). Future difficulties were also expected in the recruitment of handcraft tailors (18 per cent), cutters (6 per cent) and pressers (5 per cent). Of a total of 826 hard to fill vacancies, 75 per cent were sewing machinists, 4 per cent were cutters, 3 per cent were pressers and 3 per cent were handcraft tailors. The main reasons for such vacancies being hard to fill were: lack of applicants with the requisite qualifications and skill (42 per cent); lack of applicants interested in this type of work (33 per cent); lack of applicants with the required working experience (26 per cent).

Firms anticipating recruitment difficulties over the next two years represented 17 per cent of firms (25 per cent of employment). Of these, 49 per cent had current vacancies and 66 per cent had experienced difficulty in filling vacancies. More white-owned firms anticipated recruitment difficulties (21 per cent), than firms with non-white owners (10 per cent). The effect of recruitment difficulties on current business performance was considered to be

significant by 55 per cent, noticeable by 15 per cent and negligible by 28 per cent. The major effects were: loss of business orders (48 per cent); restricting future business development (28 per cent); missed deadlines (24 per cent); and increased work in progress (13 per cent). To combat difficulties in filling vacancies, 43 per cent of companies surveyed had increased recruitment efforts; 16 per cent had retrained staff; and 23 per cent reported no action whatsoever.

It was a recurrent theme during the employer consultations that skills shortages and recruitment difficulties were part of a wider problem of labour turnover and retention, or that high labour turnover reflected the difficulty of recruiting skilled workers. Most clothing employers expected to provide on-the-job training, even for experienced sewing machinists, to get them suitably skilled to work on specific products. The main difficulty was attracting workers with the potential to learn and retaining them long enough to recoup the investment in training.

Workforce Skills

Respondents were asked a range of questions concerning workforce skills: whether skills needs are changing; the nature of skills gaps in existing employers; and the extent of multi-skilling. All respondents were asked whether the level or range of skills required to do the job was increasing or decreasing. Over all occupations, 42 per cent of firms felt that skills needs were increasing and 10 per cent felt that they were decreasing. Skill demands were thought to be increasing most significantly for apprentices/trainees, garment technologists, engineering technicians, IT specialists, managers and designers.

The tendency to report increasing skills needs is related positively to company size. Thus, 63 per cent of companies with 100 or more employees reported increasing skills needs compared with 40-41 per cent of enterprises in each of the three size bands employing fewer than 25 employees. In the smaller enterprises, for example, the key occupations in which increased skill needs are anticipated are the owner managers or directors and, to a lesser extent, sewing machinists.

The general perception seems to be that both the level and range of skills needed to perform a variety of occupations is increasing, yet of the 1,022 companies participating in the survey, only a very small proportion of those employing in specified occupations reported *gaps* between skills of the employees and those that the organisation needs to meet its future business objectives. The specific occupational categories mentioned were: sewing machinists (13 per cent); white-collar employees (9 per cent); supervisors (9 per cent).

The effects that respondents expected these skill gaps to have on their business operation included: loss of quality (32 per cent); loss of business/orders (29 per cent); restriction of future business development (28 per cent); increased work in progress (26 per cent); increased running costs (25 per cent). In the 124 establishments where initiatives had been taken to combat skills gaps, these included: training in house (53 per cent); recruiting staff with the required skills (14 per cent); using outside consultants/providers (11 per cent); or taking no action at all (19 per cent).

Extensive multi-skilling has already been introduced. Of the total sample, only 11 per cent of firms had no multi-skilled employees. The occupational areas where multi-skilling was the highest were: sewing machinists (45 per cent); owner managers (45 per cent); directors (12 per cent); cutters (12 per cent). Occupations in which there was less reported multi-skilling included highly specialised areas, such as handcraft tailors and designers, where multi-skilling could amount to a dilution of the skills deployed. Sewing machinists were again the main occupational category identified by respondents that intended to extend multi-skilling, with 22 per cent of firms targeting this group. Other occupations identified were: owner managers (8 per cent); cutters (6 per cent); and packers (6 per cent).

The survey was intended to identify the areas in which future skills need to be developed in order to support business strategies. Therefore, employers' views on a range of generic and job-specific skills across all the occupational areas were explored. Respondents were asked to choose up to three occupational areas and identify up to two of the key (i.e. most important) skills that employees in these would require in the future. The highest number of respondents regarded job-specific skills as critical for the future. This applies across all occupational areas, although is less evident in the managerial occupations. Business or management skills are the second most important and proportionately high even in operative and manual areas. The core skills of literacy and numeracy are regarded as very minimal in terms of future priority.

Training Activity

The rationale of *Skills Foresight* is 'to provide a structured way of thinking about future skill needs, to help meet them.' An important part of this approach involves examining the match between current training demand and

provision, thereby providing information to help NTOs plan and coordinate training initiatives to meet the future skills needs of employers.

Despite evidence of the value of training and development from the *People Skills Scoreboard* (Winterton and Winterton, 2000), the BMG Survey confirmed the level of training activity in the sector is generally low. Overall, 3,492 full-time permanent employees in the sample workforce received on-the-job and 979 off-the-job training, representing 16.6 per cent and 4.7 per cent of the total sample workforce respectively. Of the companies surveyed, 77 per cent had not provided any kind of training in the past 12 months; 23 per cent had undertaken some kind of training (either on-the-job or off-the-job or both) in the past year; 20 per cent had provided on-the-job training; and 9 per cent had undertaken off-the-job training. Training activity is clearly related to firm size; firms with at least 100 employees are three times as likely to train as those with fewer than 25 employees and over ten times as likely to train as those with fewer than 5 employees.

For every category of skill shortage difficulty, less than half of those companies with difficulties had undertaken any training in the past year. Of those reporting no difficulty, a much smaller proportion had undertaken training. As might be expected, companies that had current or hard-to-fill vacancies, skills gaps or anticipated recruitment difficulties were doing more training than those who did not. It is surprising that training levels are not higher for those companies experiencing or expected to experience skills shortages. Respondents were asked about expenditure on training in the past 12 months, but 52 per cent were unable or unwilling to provide information on such expenditure.

Respondents from organisations that had provided on-the-job or off-the-job training in the previous 12 months were asked whether there were any barriers to the amount of training undertaken by specific occupational groups within their firm. Three key barriers were identified: within each occupation, the factor regarded as a barrier by the highest proportion of employers was cost of training to the business; this was followed by the cost of releasing the employee, for all but technical staff; and the times of day when courses are run.

Respondents were asked to identify those occupations for which either on-the-job or off-the-job training had been provided over the past 12 months. Of the 222 enterprises that responded, the highest proportion provided training for: sewing machinists; sales staff; white-collar staff and pressers. More than 50 per cent of employers also mentioned training provided for: managers; supervisors; engineering technicians; packers and cutters. The three main occupations for which respondents identified skills gaps (sewing machinists, white-collar employees and supervisors) feature among those in receipt of training.

Respondents were asked what skills had been developed through training in relation to broad occupational groups. Overall, specific job-related skills have been the main target of training across all occupational groups, and especially for supervisors, operatives and trainees, but significant other skills were evident in most groups. IT skills were mentioned by a higher proportion of employers than job-related skills for management, technical specialists and other staff, and were second only to job-related skills in the other categories.

The question on future training was concerned with whether those who had undergone training over the past year were likely to continue it in the future. For on-the-job training, 84 per cent of respondents expected it to either increase or remain the same as last year. Only 7 per cent expected the volume of training to decrease. For off-the-job training, 70 per cent expected it to either increase or remain the same as last year, while 10 per cent thought it would decrease. Overall, therefore, respondents expected that training activity in the coming year would be at least as high as, and probably higher than, the past 12 months.

Respondents were questioned regarding their awareness of various UK industry/business initiatives aimed at generating access to funding for training and development of employees. Although knowledge of NVQs/SVQs, *Investors in People*, *New Deal for Young People*, *New Deal for Adults*, and *Modern Apprenticeships* and *National Traineeships* was relatively high, 21 per cent of the sample had heard of none of the initiatives outlined. When asked which of these initiatives had been useful to the business: 73 per cent felt that none of them had been useful; 12 per cent thought NVQ/SVQs had been useful to the business; 6 per cent cited *Investors in People;* 5 per cent *New Deal for Adults;* 4 per cent *New Deal for Young People;* 4 per cent *Modern Apprenticeships* or *National Traineeships.* Of the 471 firms that had heard of *Investors in People*, only 15 enterprises (3 per cent) had achieved the award, 33 companies (7 per cent) were working towards the award, 50 per cent were not interested in achieving *Investors in People.*

Conclusions and Recommendations

The *Skills Foresight* analysis identified serious recruitment difficulties, skills gaps and skills shortages in the clothing industry, despite the job losses of recent months. Moreover, the study confirmed a reluctance to train in the face of difficulties with labour retention (Bond *et al*, 1999) creating a self-fulfilling prophecy of skills shortages and

skills gaps. In specific terms, the study demonstrated that clothing employers need support in developing the skills needed for the future, and the following specific recommendations were made:

- The training and development of apprentices and other trainees should be more extensive to meet the increasing skill demands of their jobs. The use of new training media should be encouraged and special attention should be directed to induction and transfer of skills from training to production.
- Although multi-skilling is already extensive, more operatives, especially sewing machinists, should be multi-skilled. Moreover, even within enterprises that have already introduced multi-skilling, both the breadth and depth of skills should be developed further. Operatives need training for team working and in quality processes as well as empowerment and time management skills.
- Designers need more training in the use of new technologies and, crucially, in the technical aspects of fabrics, garment technology and production. The key skills are those needed to translate designs into production. Retraining and conversion courses for designers should be introduced to address an acute shortage of garment technologists and an apparent oversupply of fashion designers in the labour market.
- Managers, and especially owner-managers in smaller enterprises, need better access to training in ICT, leadership, delegation and 'people skills' as well as job-specific clothing production skills. There is a need to introduce innovative forms of training at work to minimize absence. Management learning should focus on the skills necessary for the operation of the restructured global organisation, particularly developing competence in international trading, importing and exporting, dealing with clients, using new ICT, marketing and communication skills.

Contribution to New Knowledge in HRD

The *Skills Foresight* project was designed to meet the immediate needs of the sector for information about current and future skills shortages and skills gaps. To the extent that little labour market information of sufficient detail existed prior to the exercise, it achieved its objective of generating new knowledge as the basis for the sector *Workforce Development Plan*. In addition, the project made a wider contribution both in substantive and methodological terms to forecasting future skill needs.

Substantive Contribution

The UK clothing industry, in common with garment making in other high-wage economies, is in decline, yet despite making substantial numbers of skilled clothing workers redundant in recent years, employers report widespread skills shortages, difficulties in recruitment and chronic labour turnover. Moreover, the two main survival strategies, outsourcing and niche marketing, are each beset with skills problems. Enterprises that have developed outsourcing strategies and are therefore less dependent upon traditional production skills inside the organisation, are nonetheless experiencing skills gaps, especially among managers, who must now deal with networked organisations and different cultures. Enterprises, such as parts of the London fashion industry, that have succeeded in developing high quality, high-value added niche markets, have potential for growth and sustainable profitability, but their expansion is equally hampered by skills shortages and recruitment difficulties. Overall, the situation is made more serious by inadequate HRD strategies and the prevalent self-fulfilling prophesy among the industry's leaders that investment in training cannot be recouped because of high labour turnover. Acute skills shortages, skills gaps and inadequate HRD, coupled with recruitment and retention problems, may be construed as symptoms of 'market failure', because if labour markets operated according to theoretical models, employers facing skills shortages and skills gaps would provide training to meet future needs and develop strategies to retain skilled labour. Since those participating in the survey and focus groups represent the more progressive and aware managers in the sector, there is evidently an urgent need for intervention and planning at sector level.

Methodological Contribution

In methodological terms, the project has taken further the qualitative methods first used in an earlier study of the future skills needs of managers (Winterton, 2001), demonstrating their generic utility in exploring detailed skills issues at sector level. The study also demonstrated both the efficacy and necessity of using a sector-based restructuring model as a framework to structure discussions on contemporary change and future skills needs. Moreover, the research has shown the value of combining qualitative empirical findings with quantitative labour market information, enriching and at the same time validating the survey evidence. There is, nonetheless, an

important caveat to be made. If the management respondents reporting anticipated skills shortages and skills gaps appear to be doing little to alleviate them, can we be sure that their perceptions are reliable?

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Searching for the Future of Human Resource Development

Wendy E.A. Ruona
University of Georgia

Susan A. Lynham
Texas A & M University

Tom Chermack
University of Minnesota

This research reports on surveys of 55 HRD and HRD-related practitioners and academics and identifies trends, variables, and challenges that are affecting and will affect the profession during the next 15-20 years. The results show that those surveyed are most concerned with HRD's role, identity, credibility, value, and impact in the changing workplace of tomorrow.

Keywords: Future of HRD, Trends, Profession

Lyndon B. Johnson once said, "yesterday is not ours to recover, but tomorrow is ours to win or lose" (Cook, 1993). There is great wisdom to be revealed in that sage statement, especially for the profession of Human Resource Development (HRD). HRD is nearing a crossroads. A relatively young profession, a "teenager" if you will, compared to other professions, HRD is increasingly under pressure to legitimize and differentiate itself (Ruona, 2000). This is true in organizations where professionals scrap for recognition and resources, in journals where concepts, research, and emerging theories are increasingly scrutinized for rigor and contribution to a durable and distinct knowledgebase, and in countless other places and contexts where HRD professionals are trying to make a difference in the critical interface where learning, performance, and the workplace converge.

The profession has made great progress, and yet much of its foundation is quite fragile. Like most people today, especially teenagers, the profession is facing an uncertain future with increased pressure to be clear about who it is now and to equip itself for the frontier that lies ahead. A key competency for young people today is to be very adept at sensing and adapting to future trends, and so it is also with professions. To thrive tomorrow, HRD must earnestly contemplate the future and ready itself. The profession of HRD must consciously scope and plan for the future. One way to do that is to begin to identify and dialogue about assumptions and concerns underlying HRD's strategic thinking and vision and the variables that will fundamentally affect the profession during the next 15-20 years.

The importance of considering the future has increasingly come to light for HRD professionals, however the few available pieces about the future of the profession have been exploratory or theoretical in nature (Swanson, Lynham, Ruona, & Provo, 1998; McLagan, 1999; Streumer, Van der Klink & Van de Brink, 1999). In the spirit of continuing and furthering the dialogue about the future of HRD, this study has drawn from and attempted to build upon previous inquiries into the future of the profession. As has been the case with other professions such as psychology, economics, management, and political science, HRD professionals can expect a lengthy dialogue and building tensions as the profession and its leaders seek to solidify their foundations.

Theoretical Framework

The current study is situated in the context of scenario planning. Scenario planning is a process of positing several alternative future environments based on data and imagination, in which decisions about the future may be played out for the purpose of recognizing current forces and their plausible future implications (Porter, 1985; Schwartz, 1991; Ringland, 1998; Shoemaker, 1995). Scenario planning emerged in business and industry over 30 years ago (see Chermack, Lynham & Ruona, in press, for more detailed historical review) and has steadily grown to be a primary tool to enhance traditional strategic planning processes. Van der Heijden (1997) asserts that scenario planning ultimately seeks to integrate three paradigms of strategic thinking: the rationalist, the evolutionary, and the processural. Each of these paradigms carries its own sets of assumptions which together help to explain the complex reality of strategy making. However, scenario planning most heartily aligns itself with the processural paradigm which emphasizes individual and organizational learning. Van der Heijden (1997) conceptualizes the strategy development process as a learning process modeling Kolb's (1984) theory of learning which consists of four phases:

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concrete experience, observation and reflection, formation of abstract conceptualization, and testing new implications in new situations.

There are many descriptions of how to do scenario planning in the literature. The Centre for Innovative Leadership (1995) identifies the following six steps, which mirror many of the methodologies available publicly today. These are:

1. Identification of a strategic organizational agenda, including assumptions and concerns about strategic thinking and vision.
2. Challenging of existing assumptions of organizational decision makers by questioning current mental models about the external environment.
3. Systematically examining the organizations external environment to improve understanding of the structure of key forces driving change.
4. Synthesis of information about possible future events into three or four alternative plots or story lines about possible futures.
5. Development of narratives to make the stories relevant and compelling to decision makers.
6. Use of stories to help decision makers "re-view" their strategic thinking.

One of the first steps of any scenario planning process is to elicit the strategic insights of the client. These include tacit and explicit ideas of what is strategically important, what drives (or should drive) the success of the organization, and concerns and anxieties about the future, etc... (van der Heijden, 1997). It is imperative to begin with the clients' view to frame any resulting scenarios in a way that can have optimal impact. This research project begins to address this first step by eliciting the views of people who are actively creating and shaping the HRD profession in order to begin to outline a potential strategic agenda for HRD.

Purpose

The purpose of this study was to gather opinions, thoughts, and concerns about the future of HRD from those who are actively working in and with the profession. The study queried HRD practitioners and academics, as well as those directly and indirectly involved with HRD, about trends, variables, and challenges that are affecting and will likely affect the profession during the next 15-20 years. The guiding research questions for this study were:

- What future trends might affect the profession of HRD?
- What risks might challenge the future effectiveness of the HRD profession?

This study will provide data to help HRD professionals begin to answer critical questions that will help to improve their own strategic thinking as well as the strategic viability of the profession.

Methodology

This paper presents integrated findings from two separate open-ended question surveys. Each of these surveys is described below, including a discussion of how each set of data was gathered and analyzed.

Survey #1

A survey was administered by these authors via e-mail bewteen March-April, 2001. Participants were asked to answer 10 open-ended questions. These questions were created based on van der Heijden's (1997) reccomendations for individual interviews (pg. 146-148) and participants were asked to asess the health of the profession by addressing such things as the surprises and challenges the profession had or had not endured, if and how the profession had grown, and its distinctive competitive advantage in 2015. Participants were also asked 5 demographical questions. Reminders were sent to participants approximately three weeks after the initial survey was sent in order to enhance the response rate.

The participants solicited were randomly chosen from a pool comprised of 40 volunteer members of two organizations. That is, each potential participant was either currently serving as: (1) a member of the Research-to-Practice Committee of the American Society of Training and Development (ASTD) or (2) a member of the Board of Directors or a Chair of a committee of the Academy of Human Resource Development (AHRD). This sampling criterion was chosen because these entities are key associations in the field and the members of these committees are either elected or nominated by their membership. The participant pool was male and female participants from diverse professional backgrounds and varied in age from 26-65 years.

Fourteen people responded to this survey for a response rate of 35%. Although this response rate is less than ideal from a quantitative research perspective, it is somewhat understandable because of its entirely open-ended

nature. The results of this survey have thus been combined with survey #2 (described below) and seek only to provide an initial outline of themes emerging from these open-ended questions.

Survey #2

A seperate survey was conducted by the ASTD Research-to-Practice Committee and the Academy of Human Resource Development in preparation for a Future Search Conference (Weisbord & Janoff, 1999) they sponsored in June, 2001. That conference brought together 70 individuals with diverse backgrounds and perspectves to focus on the emerging roles of HRD over the next fifteen years. As a part of pre-work for that conference, the committee sent out a survey asking the 70 invited participants to answer the following question: "What do you see to be the three greatest challenges for leaders of workplace learning and performance in the new Millennium?"

These participants included corporate chief and senior executives, researchers in HRD, HRD practitioners in both private and public companies, representatives of the field of Human Resources Management, consultants, line workers and students. Attendance was by invitation only and included representation from the United States, Europe, and Asia. The participant pool was male and female and varied in age from 26-65 years. 41 participant responsed to this survey query for a response rate of 59%.

Analysis of the Survey Data

Each of the surveys asked open-ended questions, resulting in narrative data to be qualitatively analyzed. Data from the two surveys (55 respondents in all) was combined and analyzed to identify emerging themes. The process used was based on the constant comparative method (Maykut and Morehouse, 1994) and generic coding procedures. These included analysis of four surveys to develop an initial coding scheme, extensive review of all data, recursive evolutions of the coding scheme, and the use of an electronic database to facilitate queries and coding. One of the authors on this paper created the initial coding scheme and initially coded the data, while the other co-authors served as peer reviewers to help to ensure trustworthiness of the analysis by providing the initial coder with feedback on (a) how well the participant's input was being understood and (b) how effectively meaning of the text was being interpreted given the coder's biases. The results provided below were not unanimously held by all participants, but rather reflect the patterns that emerged from the 55 participants, with an emphasis on those themes that garnered either the most or the strongest responses. What follows is a descriptive and interpretive account of the current strategic thinking of those surveyed for these projects, with examples and quotes to support them as space allows. In addition, the 120 trends identified from the literature were then further analyzed in light of the themes emerging from the survey data. When relevant and or provocative, trends from the literature are incorporated in each of the themes reported below.

Results

The most prominent themes that emerged are presented below. This section first overviews respondents' ideas on the forces affecting HRD in the future. The second section discusses what respondents identified as the primary role and work of HRD in the next 10-15 years. Finally, this section ends by outlining the challenges that respondents believed would need to be overcome if HRD were to thrive in the coming years.

Forces Affecting HRD in the Future

A few key driving forces emerged from the 55 respondents. Interestingly, one theme focused on whether and the extent to which HRD could keep up with changing conditions. Other respondents focused on globalization, technology, and changing organizations and workforce demographics as prominent trends on which to focus. Each is briefly reported on below.

Will HRD keep up? One of the biggest concerns about the future of the profession is its receptiveness and ability to adjust to changing conditions in organizations. Twelve respondents critiqued HRD for not changing with organizational and global demands, and certainly for not being at the forefront of them and taking leadership roles in organizational responses to trends. While a few people did applaud HRD's fast maturation and for how it has grown so quickly, most worried about losing that spirit in the future.

Globalization. Globalization surfaced as a primary trend impacting organizations, and thus HRD, during the next 15-10 years. Overall, ten respondents discussed this theme, focusing primarily on the challenges of truly embracing the process of globalization with all its implications. There were many issues listed including: crossing boundaries of time, space, geography and culture, economic issues, culture clash, working virtually, coping with increased bureaucracy, and exploitation issues arising out of countries with fewer legal restrictions.

The HRD implications of globalization were well cited by 16 respondents. They discussed the need for the profession to better understand and integrate intercultural practices into global organization, rather than assuming or imposing a western view on the people and culture of other countries. And, three respondents called for HRD to reflect deeply about the effect of globalization on all aspects of work and culture, and only then to proceed in developing specific methods for workplace learning and organizational change.

Changing Organizations and Workforce. Organizations of today were consistently characterized by respondents as global, technological, highly flexible, and under great demands to change. Twelve respondents focused on shifting workforce demographics as a key force driving change in HRD. This increasing workforce diversity was characterized by an aging baby-boomer generation, more generations present in the workplace, second and third world countries joining with first world countries' organizations, and varied knowledge/skill levels.

Technology. Five respondents clearly identified technology as a force that will continue to fundamentally shape organizations. "E-everything", one person predicted, was going to continue to change the way work is done and who's doing it to such a degree that we may not recognize what we now call the workplace in 15 years. Twenty-one respondents directly discussed the impact of technology on learning practices such as e-learning and virtual offices. They wondered if HRD would harness and explode the potential of technology, while also effectively integrating it with learning theory premises such as social learning, adult learning, and learning styles. A few others reflected on the impact of technology on the workplace questioning the effect of "virtuality" on basic human needs.

HRD's Role in the Future

There was discussion of the type of work that the profession would be doing and leveraging in future years. This discussion included issues related to identifying and developing HRD's core competencies.

Learning. The responses of twenty-one people comprise the basis of one of the most prominent themes emerging from the two surveys. Learning and human (more specifically adult) development was identified as *the* most powerful competitive advantage of the field. Three people identified HRD as the discipline that takes care of people (including competency, motivation, helping people achieve success, and making work meaningful.) At least five participants warned the field to shift away from its strong emphasis on training and embrace a learning centered mission. Three respondents emphasized the importance of effectively using and integrating learning methodologies in a systemic way in organizations, urging HRD to focus on creating cultures that are truly conductive to learning, including structure, resources, challenging work assignments, and reward systems that foster learning.

Three other participants cited innovative learning practices such as action learning, informal learning, and the "unlearning" process as fundamental competencies for the future. Speed, too, was an issue that was stressed by two participants who underscored how rapidly skills sets will change.

Many respondents indicated their preference that learning be used to impact organizational performance, extending the learning and development theme and explicitly linking it to organizational systems and processes and stressing the importance of having an impact on the success and performance of individuals, groups, and organizations. A relative minority in this data set, a few other respondents did not so heartily embrace this "performance" mission, however even they seemed to agree that organizational constraints (such as time and resources) must be overcome in order to further the learning mission.

Change & Organizational Systems. Six people identified a key role for HRD in the future as that of helping people overcome resistance to and better cope with increasingly rapid change and its implications. In addition, one person emphasized that part of that role entailed building systems that support uncertainties. Related to this, three people cited the critical role of systems thinking and integrating what we do into business and organizational processes.

Knowledge Management/Capital. Four people asserted that HRD must fulfill a key role in knowledge creation and management in organizations. In addition, two people saw this as a way to protect people from information overload inherent in the new economy.

Challenges Facing HRD

Survey respondents identified many challenges facing HRD in the future. The strongest themes were those that focused on HRD's credibility, influence, and impact in organizations.

Organizational Presence and Recognition. There was much discussion (over 26 respondents) about HRD's absence in the "boardroom" and in organizational leadership positions. Other issues related to this problem included inadequate resources, inability to influence strategy and decisions in organization, and HRD's continued "separateness" in the organization.

There were two voices that emerged here. Some respondents talked about these things as if they should simply be happening—as if organizations need to recognize us, allow us access, afford us more respect, etc.... While another critiqued that attitude. For example one person stated that this "belief that we can prove our worth simply by talking and writing a lot and that eventually others will see the light and recognize HRD as worthwhile" is one that constrains the field the most. Most of the respondents aligned with that second voice and attributed the current situation to our lack of relevancy, contribution, and impact on the strategy and/or bottom-line of organizations. These respondents also wondered whether practitioners would gain the skills needed to seriously contribute to the value chain of the organization, to speak the language of the organization, to work to convince organizational leaders that people in organizations and the HRD profession can be of strategic value, to have the courage and tenacity to make a difference in organizations, and to develop the methodologies that integrate HRD in to day-to-day organizational life.

Evaluation & Return on Investment. Twelve respondents more explicitly linked this issue with the profession's inability to be market-driven and demonstrate return-on-investment. Some people talked about building methodologies that went beyond Kirkpatrick's (1994) 4 Level (satisfaction, learning, behavior, results) stronghold on evaluation, and instead fostering many more innovative models by which to judge training effectiveness. Others focused on cost-benefit methodologies and making connections that demonstrate cost-effectives, revenue growth, value, and specific bottom-line impact to stimulate increased investment.

HRD's Identity. Some respondents largely attributed the above challenges to HRD's inability to identify its core competencies and competitive advantage. Eleven respondents projected that the field would collapse due to its inability to define and differentiate itself. These people asserted the field does not know what it is and how it is different from other professions, especially those that are highly related. One question on the survey administered by these authors specifically solicited ideas on the professions that would likely be competitors in the next 10-15 years. Respondents identified Information Technology, Human Resource Management, Organization Development, Management, Knowledge Management, and Industrial/Organization Psychology. Respondents offered multiple reasons why these competitors would emerge, and very few reasons why they *wouldn't* threaten the viability of the HRD profession.

Three respondents did highly value HRD's openness to diversity and hoped that would continue in the future as a key competitive advantage. One person felt that HRD could not define a competitive advantage because it is a process, not an object. Largely, though, most who participated in these surveys felt that, in the words of one participant, "valuing diversity can also be seen as valuing obscurity" and, in the words of many others, was ultimately taking away from valuing focus, discipline, and relevance. One person asserted that it was "egalitarianism that would kill HRD." These respondents argued for a more unified perspective on the profession's identity, vision, and goals. Other people wondered whether this focus would demand a new name for the profession—one that better represents our core values and the work that we do. One person also called for increased internationalizing of the field. Another called for HRD to realize that the tripartite model of HRD (as Training & Development, Organization Development, and Career Development) is obsolete.

Identifying HRD's Stakeholders. An analysis of the data also points to another challenge. While there was much discussion about increasing HRD's presence and contributions in organizations, there was also a vocal contingency that questioned or wished to downplay an emphasis on the organizational context. Twelve respondents talked about expanding notions of whom the profession serves. A few critiqued HRD for being too focused on organizations, and

a large, corporate model of them (rather than small organizations for instance). Others wondered whether HRD would expand its role to working with the community, schools and educational institutions, nations, and society as a whole. For some this was akin to reframing our work in the context of workforce development throughout the lifespan while others focused on community outreach and protecting the most vulnerable in society as well as those that are exploited by organizations.

Standards and Professionalization. Seven respondents wondered whether steps toward professionalization would happen, and identified these as fundamental to future excellence. These included identifying general competencies, standards of practice, certification/credentialing, and increased use of the AHRD Standards on Ethics and Integrity. Of main concern here was that professionals need some way to differentiate between good and bad practice, practitioners, theory/research. And that, while we had made some promising progress in the last 10 years, it has not been enough. Highly related to this, four people wondered whether this lack of identity and movement towards professionalization had or would begin to affect the profession's ability to attract the best and brightest leaders to the field.

Scholarly Leadership. There was much discussion about scholarly leadership in the field. Nine respondents highlighted the need for the field to become truly multi-disciplinary. This included welcoming many perspectives, most especially internationally, as well as being increasingly willing to explore theory and practice that has traditionally been on the fringes as a potential source of material and inspiration. Other people extended this reasoning and encouraged the field to maintain the eclecticism of its youth by attracting and embracing professionals from other fields who can add to HRD. One person foresaw the need to build more strategic alliances with related disciplines. While others envisioned maintaining and widening the diversity that exists in the field currently by increasing dialogue, valuing the dynamics tension of various perspectives, and tearing down barriers for a whole range of practitioners and researchers.

Eight people called for a genuine collaboration between practitioners and academics, and the professional organizations that represent them (i.e. ASTD and AHRD). According to these people, there must be efforts to elegantly connect theory and practice. Six respondents wondered whether HRD research would emerge as a guiding force for practitioners. While the growing number and quality of HRD-specific journals was applauded, many hoped for even more rigor and growth. Respondents also wondered whether HRD would identify its core theoretical bases and begin to develop theories of their own that are substantive and tightly integrated with practice.

Finally, while HRD is beginning to find an academic home in colleges of education, as one person pointed out, it is not always a comfortable one. Five respondents hoped for more academic support at all levels in universities, acknowledgement from colleagues in other disciplines, growth in the number of programs (especially in the western half of the United States), increased numbers of students seeking advanced education in HRD, and for enhanced research-orientation in these programs.

Conclusion and Recommendations

This research queried HRD practitioners and academics, as well as those directly and indirectly involved with HRD, about trends, variables, and challenges that are affecting and may likely affect the profession during the next 15-20 years. It is one of the first data-based surveys to inquire into professionals' ideas about the future of HRD and it, therefore, provides a compelling pulse of the profession's ability to look into the future and identify key future challenges facing the profession.

This research demonstrates that we have much to do if HRD is to thrive in the future. First, we must continue to delve into present trends and future predictions of how they might be amplified. The future cannot be predicted with any certainty. Yet, this is the main reason for studying the future, "to look at what may happen if present trends continue, decide if this is what is desireable, and, if not, work to change it" (World Futurist Society, 2001, pg.2). Knowing about future trends is what empowers us to act. The survey data was rather limited in terms of the projections and ideas that are available. Participants seemed to reflect a limited understanding of future trends. This is not suprising, nor it is a judgement of these participants. Most people tend to have their hands quite full focusing on today and do not think much about the future. However, ignoring driving forces at a profession-level is risky and will likely result in HRD being ill-positioned to make substantial contributions to work-related learning and peformance in organizations in the future.

The surveys did point to the continuing prominence of globalization, technology, and shifting workforce demographics as key trends that will impact organizations. Most respondents who reflected on these trends felt that organizations (and HRD) had yet to really comprehend the far-reaching impact of these forces.

Learning was held up as the most powerful differentiator and competitive advantage that HRD has. Both the respondents and the literature agree that the importance of learning will continue to increase. The coming years will demand that learning occur faster, in more diverse places, across more cultural and national boundaries, and with more efficiency (O'connel, 1999; Flanagan, 1999). What is less clear is how this frenzy will be supported. The real challenge for HRD is to find new ways to implement learning technologies that are efficient and effective and that deliver immediate, strategic, and impactful results. The literature and some survey respondents also called for more critical attention from HRD on issues related to knowledge management. This has not yet been heartily embraced in HRD, however the future beckons that we play a dominant role in those initiatives.

There was less talk about the role of HRD in organizational development and change efforts than we had initially expected. The respondents of the second (Future Search) survey tended to identify more with a training/educational role, so this might have skewed the data. However, even in AHRD proceedings and journals we continue to see training issues dominate. One respondent suggested that HRD must accept the obsolescence of the traditional HRD tripartite (Training, Organization Development and Career Development). These authors would concur based on this data and urge the profession to ask itself whether "Human Resource Development" is synonymous with or different from "training". Then, we must look at that in relation to the emphasis on learning in this data to explore how these ideas are connected.

The challenges facing the profession were overwhelmingly clear in participant responses. This data presents a paradox that must be faced—the profession is struggling to earn organizational respect and obtain influence and resources and yet, at the same time, is also struggling to define, delimit, and rigorously evaluate itself. As seen in this data, there is still some debate about whether HRD should limit itself to an organizational context and whether it should truly embrace a performance-improvement mission that addresses organizational systems as well as the traditional training role. This inability to articulate our strategic competitive advantage may necessarily restrict HRD's potential and make the profession vulnerable in the future.

The participants also indicated that HRD's strategic role is in great jeopardy. They felt that HRD must make its relevancy, contribution, and impact on organizational strategy and bottom-line clear, and build a research and knowledgebase that supports this, if it is to thrive in the future. The traditional people management functions of Human Resources Management (HRM), and more broadly Human Resources (HR), are coming under scrutiny in terms of their perceived and measurable strategic value in organizations of the future. It is imperative that HRD acknowledge that the impact of these trends will have significant, knock-on implications, including an increasing need for HRD to articulate and demonstrate its strategic competitive advantage and role in future organizational survival and performance (Anderson, 1997; Ferris, Hochwarter, Buckley, & Frink, 1999; Woods, 1999).

Furthermore, the literature clearly points to HRM as evolving towards a more development-oriented and consultative role. In times of scarce resources, HRM and other disciplines will figure out how to do what HRD does in their pursuit of strategic influence. While this is explicit in the literature surrounding future trends in HRD/HRM (Hogets et al., 1999; Brockbank, 1999; Wright et al., 1999) it is uncertain whether HRD professionals, as a whole, are truly aware of what is at stake.

Limitations of this Research

There are limitations to this research project. First, although the data reported here is qualitative in nature, it results from two separate surveys with response rates between 35% - 59%. Most survey professionals would agree that a response rate of less than 50% is inadequate and that open-ended questions "rarely assess the level of intensity or a given issue, feeling, or concern" (Church & Waclawksi, 1998, pg. 50). The results reported here are interpreted by these authors, and should be by the reader, as indicative only of the strategic insights of the 55 people who participated in the survey and not as a representative sample of those who were surveyed and did not respond. The results should be interpreted from a perspective rooted in the assumptions of qualitative research rather than quantitative. Secondly, it must be reiterated that this study is only an early mile-marker in a longer journey of understanding the strategic mindset of leaders in the HRD profession.

Implications for Future Research and Practice

This study should be interpreted by practitioners and researchers as a pulse of HRD professionals views of future trends and driving forces that may impact HRD, and the challenges that these present for the profession. It is hoped that the results of this study stimulate critical attention on the future as an issue that we must actively reflect and act on in both our practice and research. Practitioners can make more strategic and forward-thinking decisions with their critical eye on potential ways that the future may unfold, and not be surprised when things they've entertained begin to happen. HRD researchers might use this study to further research future trends and explore their effects at a much

deeper level than was possible here. Furthermore, this study could be used as a baseline for more extensive research about future-thinking in the profession and/or as a springboard to continue on in the scenario planning process.

Most importantly, it is hoped that this study empowers HRD professionals to inspect the current state of the profession given a future context—and, in so doing, act to ensure that 15-20 years from now the profession will be strong and viable and doing important work for people and organizations.

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The Dynamics of the HRD Profession in the Netherlands

Wim J. Nijhof
University of Twente

Since 1990, studies have been carried out by the University of Twente to describe, compare and validate HRD roles, competencies and outputs between HRD practitioners in the USA and Europe. In 1993, a replication of the ASTD study was carried out in the Netherlands, which concluded that most of the ASTD roles were reflected in Dutch HRD practice. Findings indicate that the HRD professional in the Netherlands is largely defined as a classical or typical type of trainer.

Keywords: HRD Competencies, HRD Roles, HRD Professional

"Is the HRD profession going to change?" This is the principal question of this replication study, carried out in the Netherlands between January 1999 and September 1999. Since the beginning of the nineties, many comparative surveys have been conducted in the UK, Italy, Belgium, Northern Ireland (Nijhof & De Rijk, 1997), Germany (Odenthal & Nijhof, 1996), and the Netherlands (Van Ginkel, Mulder & Nijhof, 1996). The main goal of these preliminary studies was to gain a picture of the HRD profession in Europe and to see whether the profession is similar to the ASTD roles and competencies described by McLagan et al. (1989). The original question is therefore descriptive and comparative. In most of the studies, a trial was made to validate the outcomes according to the "McLagan Model". In some cases, and in line with the original studies, the question of HRD profiles was expanded in the direction of professional development and relationships to organizational characteristics of companies and HRD departments (Valkeavaara, 1997) and related to theories of personal growth.

Because of the time lag between the first study in the Netherlands (1993) and the situation in 1999, some new insights into the profession and the changes in the world of HRD have stimulated new discussions and questions about the changes in the profession in the last seven years. The availability of a zero-base data set from 1993 provides the opportunity for a replication study, and to see whether the HRD profession has changed. The basic question is therefore whether the HRD profession has changed and, if so, how and why? The assumption is that, on the basis of new trends, new roles have appeared and older ones changed. The study has the character of a monitor, following the main effects of trends in a certain occupational group, to identify new roles and competencies. The study can also falsify theses about the effects of view of learning organizations and their expected impact of turning HRD professionals into coaches and guides, instead of professional trainers. This information can also help to update HRD courses and programs at universities.

The main question of this study is descriptive in nature, and can be broken down into a set of sub-questions:

- What roles do HRD practitioners play, and are these different from 1993?
- What competencies and outputs are related to the roles in 1993 and 1999? Is there any relevant change to be perceived?
- Do megatrends have an impact on the work of HRD practitioners? What, how and why?

The following sections describe the theoretical background of the role studies as well as the trends and their implications for the field of HRD.

Theoretical Background: Professionalization, Role Concept and Performance

" Professional development is [...] the process by which individuals increase their understanding and knowledge, and/or improve their skills and abilities, to perform better in their current positions or to prepare themselves for a position to which they can realistically aspire in the near future" (McCullough, 1987, p. 37). This definition underlines the individual aspect of the professional, the necessity to improve current skills, to perform better and to prepare for the future. This definition is different from professionalization as a process of a group of professionals, in order to gain recognition and accreditation in society, which some writers define as identity formation (Thijssen, 1988). According to Thijssen, this identity formation process consists of four stages:

- task concentration
- job differentiation
- job standardization
- identity profiling

The Dutch Association of HRD Practitioners (NVvO) is nowadays very active in supporting standardization

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and certification. This means that the membership is perceived as positioned at the second stage of identity formation, although in many cases steps toward the fourth level can be identified. The number of scholars and professorships at universities related to HRD has multiplied in the last ten years, as have journals and bulletins, conferences and organizations. At national and international level (European as well as global) not only have many new journals appeared in the last five years, but so have associations and conference organizations partly related to HRD, further education and vocational education as producers of initial jobholders. Alongside this process of identity formation, the field of research into HRD and HRM practice shows progress in terms of model evolution and model validation.

In Models of Excellence (McLagan, 1983), 15 roles of HRD practitioners were identified, which could be used for training and development and for describing the field of practice. The study was also criticized for lacking theoretical foundations and the absence of practical consequences. In 1989, McLagan & Sudolnik adopted the critique and replicated the study, using expert appraisals and validating panels. The result of this study was a total of 11 roles and 74 outputs; each role consisted of competencies in order to produce outcomes. In fact, human performance technology and role theory formed the theoretical basis of the study. Using cluster analysis and factor analysis, patterns of roles, competencies and outputs could be identified and validated. In 1996, however, McLagan reflected on these studies in the light of new trends, like information and communication technology, the rise of democracies, globalizing processes in business and industry, the trend toward core competencies of companies, outsourcing, views on the learning organization, and cost-benefit relationships, mostly leading to reduced HRD departments. On the basis of these trends, McLagan identified nine "new roles", which are, however, quite similar to those of 1989. Three roles that disappeared in her new scheme were carried out by more than 25% of the Dutch HRD practitioners in 1993, which is a substantial number.

From the viewpoint of Performance Improvement, Rothwell (1996) distinguished four new roles for HRD practitioners with the core competencies connected to these four roles:

1. Analyst, performing trouble-shooting procedures to diagnose gaps in human performance and identify opportunities for performance improvement;
2. Intervention specialist, selecting the right interventions to cover performance problems;
3. Change manager, being responsible for the implementation of interventions consistent with the intended results;
4. Evaluator, tracking the impact of the interventions and the consequences of the changes.

Rothwell defines 38 competencies and 158 outputs. The competencies are divided into 15 core competencies which are valid for all roles, and 23 competencies, each of which applies to a specific role. Outputs are split into *enabling and terminal outputs*. Terminal outputs are conditional upon enabling outputs. This is an important distinction when compared with the McLagan outputs. In McLagan's conception, all roles, competencies and outputs can have the same weight and relevance and have the same function. Rothwell takes the view of a workflow in which different competencies and outputs play different roles in different phases of the work process. Work is seen as a holistic pattern of activities to realize performance improvement. As a consequence of this conception, the ASTD entrusted to Rothwell the conducting of a new study in 1997 and 1998 of roles and competencies (Rothwell, Sanders & Soper, 1999). Instead of talking about HRD, the authors define workplace learning and performance (WLP) as "the integrated use of learning and other interventions for the purpose of improving individual and organizational performance" (p. xiii). The research is based on the question of which competencies WLP practitioners, senior WLP practitioners and line managers see as essential, now and within five years. Seven new roles have emerged from this study, with competencies and outputs. What is new is that the role of intervention specialist has been split into two new roles: intervention selector and intervention designer/developer. The sequence of roles is very dominant in this study: workflow is essential in this type of analysis. When looking at the outcomes of the McLagan and Rothwell studies, the differences prove to be marginal, although the differences between outputs in enabling and terminal are meaningful.

The European role studies of HRD by the University of Twente were greatly influenced by the ASTD studies. These studies show slight differences in culture and differentiation. The conclusion is that the role definitions are similar, but most of the time more competencies and outputs are selected per role. It could be said that the HRD roles of McLagan (1989) are valid for many European associations, but the content of the roles in terms of jobs and outputs seems to be broader (Odenthal & Nijhof, 1996). This might reflect the dominant role of small and medium-sized enterprises on the European continent, where jobs are more broadly conceived.

While the studies of McLagan et al. (1989), Rothwell et al. (1999) and Nijhof et al. (1997) have a lot of commonalities and show fairly stable results in time, the question is whether the original survey of 1993 should be changed on the basis of new insights into the world of work of the HRD practitioner. In order to make a decision on this, new trends in the field of HRD were analyzed to find indicators for new roles, competencies, and outputs. In the following section, an analysis is made of the trends and implications.

Trends and Implications

It is not easy to detect trends in HRD in a reliable and valid way. The distinction between a hype and a trend is not always unproblematic. When a trend is "a general tendency or course" (Webster's New World, 1997) and a hype " a promotion in a sensational way", it is clear that a trend in HRD is typified by its general character and can be identified in scientific journals and debates as serious scientific paradigm switches of thinking and research. Based on this notion, we will try to describe in a nutshell trends at the global level, at organizational level, at the level of an HRD department and at the level of the HRD professional. Some of these are based on empirical research, and some are idiosyncratic in nature. In all cases, there is some qualitative or quantitative argument to be considered.

Global Trends

Learning seems to be more important than training nowadays. This basic understanding shows a move away from the supply of standardized or customized training to employees, who are responsible themselves for lifelong or lifetime learning. Employability and transferability are becoming the leading motives for business and industry to see human capital as important resources with an exchange value. If employees invest in themselves through learning, the decision and organization about learning moves away from the organization to the individual. It is not too difficult to predict that the price to be paid for the 24-hour economy will be lack of loyalty, lack of commitment, and unstable organizations (Nijhof, De Jong & Beukhof, 1998).

The use of information and communication technology (ICT) in work and learning will have a great impact on HRD. "Just-in-time learning" seems to be one of the issues of learning at the workplace (Bastiaens, 1997). But ICT can also be used as a tool for learning outside the company and as a global communication tool. The worker as a self-directed learner would use this technology in the near future for employability, mobility and transferability in a learning society (Nijhof, 1999). Matching learning needs and organizing competencies and knowledge is possible using these new tools by intranet and internet; knowledge banks and intranets could be used for knowledge management and distance learning (Nijhof, 1997). The variation in learning modes, places and ages will be greater than ever. Classroom teaching will drop back to marginal proportions. The idea of learning as construction - as a social event - forces people to rethink their roles in training and learning, and to reframe designs and strategies for HRD departments (Lassnig g, 2001).

Trends at the Organizational Level

One of the most influential concepts at the organizational level is the concept of the learning organization and organizational learning (Senge, 1991) and, as a consequence of this concept, a whole series of studies of knowledge management (Davenport & Prusak, 1998), knowledge creation, and boundary crossing as a new interpretation of transfer as expanded learning emerged (Engeström, 1994). In many cases, there is a convergence with the psychology of learning according to the concepts of constructivism (Billet, 2001; Phillips, 1995; Simons & Ruijters, 2001) and anthropology (Wenger, 1998). Critique (Philips, 1995), however, may help to distinguish between very naïve forms of learning. In many cases, behaviorism is alive in performance technology, and many learning processes can be organized quite effectively according to the principles of cognitivism. Situated learning, cooperative learning and team learning could be powerful means of learning from a constructive view. The consequence is a redefinition of learning and learning environments (Kaiser & Holton, 1998).

Trends at the Level of the HRD Department and the HRD Professional

Some writers see collective learning and the ability to do this as an organization as a precondition for the future. Based on the notions of Nonaka and Takeuchi (1991) of sharing tacit knowledge and expertise, many HRD staff should break away from their roles and competencies, which are based on traditional models of classroom learning and formal knowledge exchange (Eraut, 2001). The role of HRD practitioner, especially the role of trainer, will disappear, while the tendency is for employees to learn through experience at the workplace. If lifelong learning is a serious issue, employee flexibility and employability is placed on the political and business agenda (Brown & Keep, 1999; Nijhof, Van Kieft & Van Woerkom, 2001; Sprenger, 1998). The future role of HRD practitioners could change to that of coach.

The use of new technologies, like Electronic Performance Support Systems (EPSS), as tools for learning at the workplace is predicted to be one of the growing fields in HRD. Bassi, Cheney, Van Buren (1997) conducted a study on the use of ICT and the motives for its use. These are: cost effectiveness, higher instructional quality, customized learning and speed, less hardware and fewer constraints, decentralized instruction and just-in-time motives, and a "teacher" capable of teaching when necessary. Recent research, however, shows that however rational these motives might be the social function of learning should not be underestimated. One of the predictions is that Intranet and learning using networks will take pride of place in this millennium (Bassi et al, 1997). The use of the PC and e-mail is as high as 95% and 81% respectively, while the more advanced technologies like EPSS score as low as 2.5%.

New Trends - New Roles?

As a consequence of knowledge management and outsourcing, one might expect that a company would have to organize interface functions for producing learning events. As a consequence of these trends, the role of

purchaser of training became visible (Van Weele, Mulder & Nijhof, 1995). This role is defined by the following outputs: exploration and analysis of the market for training and development; communication within the organization; assessment of products and services; selection of providers, contracting; monitoring and control of quality, and customer satisfaction.

Trends in the field relating to the learning organization and competence management lead to a possible role of knowledge manager, whose main task is to fine-tune the knowledge needs of the organization and the available knowledge or expertise of employees. In terms of outputs, the knowledge manager produces the development of new knowledge, the targeted distribution of knowledge within the organization, the anchoring of relevant information in the organization, the effective combinations of knowledge, the identifying of information needs, and the fine-tuning of needs and available expertise.

Flexible organizations in combination with trends toward flexibility and employability will have managers in the near future who act more and more like coaches. A coach supports the employees, formulates targets and standards, delegates responsibilities, and provides a supportive shoulder when needed. He gives feedback and reinforces good results, including financial ones. The outputs of a coach are (Twilt, 1996): facilitating learning conditions; supporting learning processes; giving responsibilities; formulating targets and standards; organizing feedback and counseling and guiding to optimal performance.

Many writers perceive the competence manager as a possible new role for HRD practitioners. This role is the potential consequence of virtual organizational thinking and concepts of the knowledge worker and learning societies in which competencies have to be organized in such a manner that the organization as a whole will profit from the expertise. The basis of this role is to see in which direction the company is going to move in the near future. The competence manager has to play a major role in terms of strategy formulation and the definition of competence profiles, and the related skills and levels of mastery. This might lead to so-called personal development plans. It is clear that the knowledge manager and the competence manager have much in common. The latter is a more strategic role; the former a more tactical or operational one.

Quality management of training and development is still high on the agenda of companies. The implementation of quality standards occurs at local and international level. The European Foundation for Quality Management (EFQM) and ISO are organizations promoting quality in order to achieve excellence and to foster competition worldwide to do better. Benchmarking is one of the tools that can be used to compare the quality of companies. It is the duty and the task of quality managers to manage and monitor the processes to produce quality. In the field of HRD too, quality managers have to design, develop, evaluate and adapt HRD programs according to quality standards.

Role or Competence: Entrepreneurship?

On the basis of an analysis of the literature, entrepreneurship is seen as one of the possible consequences of a changing labor market, where employers select and screen candidates in the perspective of flexible labor contracts. Odenthal & Nijhof (1996) found in their study of German HRD roles a new phenomenon: the entrepreneur.

However, it is difficult to perceive entrepreneur as a role with special competencies and outputs. It seems to be more adequate to formulate entrepreneur as a new competence requested by the market, a competence needed by many jobholders. Entrepreneurship is seen nowadays as a condition for a job and for different task areas, especially for business people. Entrepreneurship in the framework of HRD means a competence in starting an HRD company, department or innovation. This is based on niches in the HRD market or on a specialized skill or expertise; setting up a business plan, and being able to stimulate and motivate colleagues to collective action is the entrepreneurial competence par excellence.

In the last ten years, some important trends and developments have emerged. On the basis of the foregoing analysis, five new roles were identified, which were not included in the McLagan et al. study or in the Rothwell studies: purchaser, knowledge manager, coach, competence manager, and quality manager. These roles will be integrated into the survey to check whether they exist in practice, and whether the classical roles of trainer and coordinator of training and development are disappearing.

Survey Design and Instrumentation

This study was set up on the basis of a survey design as used in 1993 to obtain an answer to the main question and to a number of special, more detailed questions. This meant that the key instrument for collecting data was a questionnaire. While data were collected in 1999 and were compared with those from 1993, the possibilities of comparison were expanded using the questionnaire of 1993. The five new roles, with new competencies and outputs as well as the competence of entrepreneurship, were added.

The population was the membership of the Dutch Association of HRD Practitioners (NVvO) (N= 2476). In 1993, the size of the population was 1342. The response was seen as a sample of the population. Personal data was used to check the representativeness of the sample.

The questionnaire consisted of 7 parts:

- Part 1: The Job (formal label, tasks and duties)
- Part 2: Duty or role (experience, years, proportion of the workload, part-time/full-time)

- Part 3: Outputs of the role (101 outputs were defined, practitioners had to select which outputs were essential for their role);
- Part 4: Competencies of the role (relevance, expertise, level of mastery)
- Part 5: Developments and trends in HRD (opinions of practitioners in terms of impact of trends on their daily work);
- Part 6: Impact of new Information and Communication Technologies on their work and expectations for the next five years related to this;
- Part 7: General characteristics of respondents

Data collection took place in May 1999. The response, even after a non-response search, in which lack of time was the most frequent excuse, was about 13% (n=326), which is rather low for a group of professionals, who might be expected to be interested in their profession and professionalization. However, the response for other national surveys is similar (see Table 1). In 1993, the response was 70%, but from a preselected sample of 425, from a population of 1342.

Table 1: *Response in Different Countries using the Questionnaire*

Country	Send	Received	Proportion
Belgium (1993)	200	53	26.5
England (1993)	1740	228	13.1
N.Ireland (1993)	330	37	11.2
Italy (1993)	700	105	15
Netherlands (1993)	425	297	70
Germany (1996)	998	190	19
Finland (1997)	699	164	23.5

In 1993, the reliability of the different scales, based on Cronbach's alpha, was very satisfactory (Van Ginkel et al., 1994). In 1999, the alphas were also very satisfactory. The scores are presented in the next table. (Table 2).

Table 2: *Cronbach's Alphas for the Different Scales and Instruments*

Cronbachs alphas	NVvO study 1993	NVvO Study 1999
Roles	.76	.74
Outputs	.92	.94
Competencies (relevance)	.85	.90
Competencies (mastery)	.94	.92
Trends in HRD	n.a.	.70
Impact of trends on HRD	n.a.	.88
Use of new technologies (ICT)	n.a.	.83

The representativeness of the sample was checked against the population. The sample did not differ significantly in terms of age, branch, size of companies and jobs (tasks). In terms of gender, a significant difference was detected (t (2798)=2.932; p=0.003), but there was no effect of gender on the selection of roles or tasks. The conclusion is that the sample is representative of the population. (Kieft & Nijhof, 2000, p. 61). 99% had enjoyed higher education (university or polytechnic); in 1993, this percentage was slightly lower.

Results

The main question of this study is whether the HRD profession is changing as a consequence of global trends. The underlying questions are related to changes in competencies and outputs related to roles and the time interval of 7 years. First, we address the question of changing roles.

Role Change

What does the HRD profession look like in 1999? Respondents stated that about 10 duties were a part of their role, with a standard deviation of 3.7. A large number of these duties or tasks reflected developing activities, such as reading recent literature, designing and developing training, organizing networks and contacts, providing advice and consultancy to the manager. Professionalization seemed to be one of the most important activities, followed by training and communication within and outside the company. Personnel management was the responsibility of 25% of the sample. Because of the number of tasks, there seems to be a great deal of overlap between the different roles.

What roles did Dutch HRD practitioners play in 1999 compared with 1993? Table 3 gives an answer to this question. Almost 25% of the sample were trainers. This is the highest frequency, followed by coordinator of training (15%) and organization developer (15%). The role of management and coordination of training covers 13%. About 67% of the roles were covered by the traditional roles of managing, planning, coordination and execution of training. The new roles of coach (2.5%), competence manager (2.2%), knowledge manager (1.2%), quality manager (0.3%), and purchaser of training (0.3%) were marginal or almost non-existent.

Table 3: *Roles of HRD Practitioners 1993-1999 (in %)*

	1993	1999
Trainer	11.4	24.7
Coordinator of training	12.1	15.4
Organization developer	8.8	15.4
Manager of training strategies	10.8	12.7
Other+	***	8.6
Designer of training	9.8	4.3
Marketer	8.4	3.7
Career developer	11.1	2.5
Coach	***	2.5
Developer of training material	8.4	2.2
Competence manager	***	2.2
Needs analyst	10.8	1.9
Researcher	3.4	1.5
Knowledge manager	***	1.2
Evaluator and impact controller	5.1	0.6
Quality manager	***	0.3
Purchaser of training	***	0.3

*** This role was not part of the 1993 survey
\+ 'Other' means that respondents had chosen to take more than just one role.

A large number of the respondents were focused on training coordination and planning (almost 40%). OD and management of training were relatively high (almost 30%). About four roles covered 70% of the roles; in 1993 this was about 41%. What we perceive is an important change and even a concentration on four roles related to training.

Outputs

The role concept used by ASTD in 1989 and before concentrates on roles, competencies and outputs. Outputs are the consequences of actions based on competencies. Part of the problem is that outputs can have an intermediate effect or be an ultimate result of actions; ASTD does not distinguish between the two. Sometimes this concept may threaten the validity of the measurement. For the sake of comparison with the 1993 study, we maintained the concept of output and used 101 outputs for evaluation, based on all the roles, including the new ones.

Although ICT is growing in use in the professions, it seems that ICT barely penetrated the field of HRD in 1999. The output of "communication within the own organization" is very dominant.

Outputs connected with the implementation of training scored very high on the list. In Table 4, the top ten outputs are compared with those of 1993.

Table 4: *Top Ten Outputs in 1999 and 1993 (in %)*

Outputs	1999	1993
Realizing positive image HRD activities	69.2	81.2
Contracts for training	69.1	77.9
Evaluation processes	65.8	79.7
Professional advice or reference to third parties	64.6	82.4
Feedback to learners	62.7	75.0
Recommendations about necessary changes in the functioning of persons, divisions or organization	62.6	70.3
Team-building	62.4	58.2
Policy development of HRD training	61.9	77
Newly qualified people	60.7	71.4
Recommendations to management regarding HRD	60	71.4

Competencies

The ASTD survey distinguishes between four groups of competencies: disciplinary or subject matter, business-related, communicative, and intellectual competencies. In the survey, a competency was rated as relevant when 60% of the respondents scored on these competencies. From the data, we learned that communicative competencies were the most important ones, while business-related competencies scored the lowest. The standard deviation, however, was the greatest in this last category, which means that respondents differed in terms of the relevance of these competencies. This result might be affected by the difference between entrepreneurs and internal officers of HRD.

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Table 5: *Relevance and Being Competent on Competence Categories*

Competencies	Relevance		Competent	
	Mean	SD	Mean	SD
Discipline	2.06	.41	3.81	.62
Business	2.03	.61	3.77	.90
Communication	2.56	.41	4.62	.77
Intellectual	2.38	.48	4.34	.73

1= very important/relevant; 5= not important/relevant

Discipline or HRD Competencies. Formulating learning objectives was the most important skill, followed by insight into the learning process of adults. Respondents felt relatively competent in these skill areas. Research skills or competencies were not perceived as important, which seems strange in a profession in which the orientation toward outputs is dominant.

Business Competencies. None of the business competencies taken up in the survey were felt to be really important, based on the criterion that at least 60% of the respondents had to name them as important. Their own mastery of business competencies was rated as average.

Communicative Competencies. Most competencies were rated as relevant, especially social skills, feedback skills, raising questions, presentation skills, coaching, and guiding team processes. These skills are very important in the professional job of trainer and were evidently not seen as part of HRD competency or discipline like competencies. The level of skills was rated as high, with the exception of team processes.

Intellectual Competencies. Self-efficacy, intellectual versatility, and perception seem to be relevant intellectual competencies for HRD practitioners. The respondents estimated their skills in this area as rather high. Competencies like setting up scenarios for the future or creating models were estimated as low.

Outputs

Besides the qualitative analysis in terms of relevance and mastery, it was important to know how the quantitative dispersion of competencies related to 1993 and to the original ASTD study of 1989. From the data we could conclude that the ASTD study no longer fitted the Dutch situation in 1999. In Table 6 (not included) the outputs were compared between 1999, 1993 and the ASTD study of 1989. The main areas of activities of HRD professionals as formulated in 1993 functioned as points of reference.

From Table 6 (not included), we learned that most respondents realized more outputs than in the ASTD study (1989). This outcome was connected to the different designs of the studies. In the Dutch studies, the respondents could indicate which outputs were related to task areas. The number of outputs was 101 in 1999, and 74 in 1993. Even in 1993 Dutch HRD practitioners indicated far more competencies per area than did ASTD respondents . This might indicate a broader conception of the area in question inthe Netherlands.

Looking at the proportions of the competencies, we see that needs assessment scored quite high in 1999, as did HRD policy and management. In 1993 OD came top. One of the possible paradoxes now is that the sum of competencies is not necessarily the most important or frequent role, as described earlier.

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Current HRD Trends in the Netherlands: Conceptualization and Practices

Kitty Kwakman
Beatrice van der Heijden
Jan Streumer
Ida Wognum
University of Twente

Simone van Zolingen
University of Nijmegen

This contribution reviews literature concerning current HRD developments. The resulting literature outcomes have been discussed with a group of experts in the field of HRD. The remarks of this group, consisting of both academics as well as practitioners, has been used to outline a conceptual framework on current HRD developments and to illustrate the conceptual framework with examples of practices concerning HRD developments in the (late) nineties.

Keywords: Trends, Organizational practices, Expert opinions

There appears to be a large discrepancy between the reality in HRD practices and contemporary theories on HRD developments. Firstly, training and intentional learning do not occur frequently, and development processes do not happen as systematically and consciously as assumed. Besides, there is evidence that learning opportunities are unequally divided across the workforce, with managers and higher level employees enjoying relatively privileged positions.

It seems obvious that changes in job requirements due to continuously increasing employability demands necessitate to pay attention to the fit between demands and supplies in the domain of professional development. Nevertheless, it may be questioned whether proposed theoretical solutions are applicable and emergent in practice, which is considered as a second discrepancy (Senge, 1990). Especially in the domain of organizational learning "too often, rhetoric and conceptualization do not seem to lead to any substantial progress in theory-building or in practice in the field" (Harrison, 2000, p. 254).

The discrepancy between HRD theory and practice urges us to confront theorizing in the field with empirical outcomes. It is important to find out to what extent attention is paid to organizing, shaping and managing the processes of learning and development within working organizations. In order to chart this attention, we will go into HRD developments both from some theoretical perspectives as well as grounded with data gathered during working conferences. The aim of this endeavor is to track down both examples of current developments as described in literature, as well as empirical evidence. Moreover, we want to raise opportunities for HRD practitioners to add new insights to (our) theoretical positions and to explore the potential of a powerful source in building theory within the HRD domain. Both in review and data collection we kept a focus on large companies as the infrastructure for human resource development was expected to be most prevalent in these.

Theoretical Outlines

In the coming sections the literature on HRD developments in the (late) nineties is reported. A division in three areas of description has been made, i.e. developments outside working organizations, developments inside working organizations, and developments within the domain of HRD.

Developments outside Working Organizations

During the last ten years our economy has transformed into a knowledge economy (McLagan, 1999). The implications this entails for qualification requirements are considerably. As the life-cycles of occupations and functions offered by organizations have shortened tremendously in the last twenty years,mastering learning and coping strategies and the transferability of these seem to be important topics for psychological and development research in organizations (Boerlijst, Munnichs & Van der Heijden, 1998).

Yet, only in the last two decades have career researchers started to pay attention to the idea of development

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throughout one's career (Hall, 1986; Van der Heijden, 1998). This attention shows the growing concern about professional development throughout the working life. Because of the importance of continuously updating knowledge and skills, both the organization and the individual are held responsible for optimizing this development interactively.

Individuals who are able to survive the emergence of the information society, the internationalization of the economy and scientific and technological progress, are the ones with the most up-to-date knowledge and skills, but also with the capability to continuously build up new expertise requirements. Next to the computerization, the increasing globalization, internationalization, and continuously changing markets and products, one can detect changes in customer needs and behavior (see for example the increase in ecologically sound products). More and more companies privatize and are driven by market economy concepts. Obviously these changes too have many implications for the job requirements of individual employees, as innovation and technological changes poses strong demands on developing communicative and problem-solving skills (Horwitz, 1999; OECD, 2000).

Information and communication technology (ICT) is an aspect that burdens heavily on the necessary knowledge and skills to perform well in nowadays jobs. Also one can notice an increase in the use of ICT in training and development programs, both in schools as well as in company settings (Rosenberg, 2001). The latter, obviously, aggravates appeals to the individual employee in an era wherein workloads are already impressively high.

Demographic changes like the increase in women participating onto the labor market, the increasing participation of ethnic minorities, aging of the workforce and the ongoing dejuvenization have necessitated the attention for the guidance of life-long employability. Training and development programs ought to be tailored to the specific needs of classes of employees in order to increase chances of assimilation into the labor market.

Besides, more and more formal certifications are expected in order to guarantee the value of educational activities. This is why checks as to the content of educational programs and HRD programs, in general, deserve serious attention. In all sectors of higher education and vocational training one can see an increase in the attention towards customer needs. Besides, more and more one strives for a fine-tuning in educational programs with practice. For example developments like competence-based curricula, dualizing and contract education.

If the former is combined with the concerns of HRD professionals as to how to cope with the labor shortage in many areas, one can imagine the pressure that is felt by the profession as a whole.

Developments inside Working Organizations

In all sectors of the labor market one of the key changes has been the growing urge to monitor organizational aims in order to come to meet flexibility requirements, quality requirements and reduction of costs. A result has been an increasing flattening of organizations, working with business units and outsourcing of non-core tasks.

Besides, a number of developments have taken place, performance-orientation being the most far-reaching. Tayloristic modes of organizing have been changed with principles like job-enrichment and team working. In higher level jobs more and more employees telework which enables them a high amount of quantitative flexibility without losing the possibilities to keep in touch with colleagues both inside and outside the organization (E-mail, internet, mobile telephones, fax).

The increased attention for performance enhancement has enlarged the popularity of the concept of the learning organization (Brinkerhoff & Gill, 1994). The perspective of the *learning organization* is aimed at optimizing learning processes of both individual employees as well as the working organization as a whole (Marsick & Watkins, 1999). Despite the fact that many organizations have faced difficulties in translating the philosophy behind the concept in concrete management activities (Garvin, 2000), attention for the subject has led to an increase in developmental activities (Senge, Roberts, Ross, Smith, Roth & Kleiner, 1999).

More and more top management really pays attention to on-the-job learning, implicit learning processes, knowledge sharing and improvements in working processes, products or services (Gourlay, 2001; Nonaka & Takeuchi, 1995). Middle management, on the other hand, is expected to guide individual career development by means of job evaluations, assessment of training and development needs, coaching and so on. Yet, in earlier studies we have found a scarcity and often a complete absence of managerial actions or measures taken to stimulate the employee's further growth and development of his or her flexibility or versatility. Supervisors often observe a declining *learning value* (that is to say the value which the function has as nutrient for the employee's further development) of the functions of their aging employees but do not seem to react to it by enhancing this value. The function becomes void of learning stimuli and new learning challenges. This can even happen in higher level jobs that are extremely important for the organization and perhaps highly complex and demanding.

Yet, guiding the individual career development is not only the responsibility of management in working organizations. Employees themselves are also expected to put a lot of effort and energy in improving their employability. Both the individual and his or her immediate supervisor should be engaged actively in the development of the individual's capabilities. In addition to training and development programs it is important to provide work experience with opportunities to use talents and to develop professional expertise, preferably in more than one area of expertise. The employees themselves are the ones who have to take an entrepreneurial approach to their own career development (Rhebergen & Wognum, 1996), and to display a learning attitude. It requires a 'hunger' for activities that benefit further growth.

Opposite to the need to enlarge one's employability, maybe even in an external sense implying that the employee's attractiveness for competitors increases as well, organizations try to guard the commitment from the employee towards the organization. More and more, flexworkers, part-time workers and knowledge workers question the need for a high amount of commitment to one particular organization. Next to the tension between the need to enlarging the amount of employability and guiding the commitment, problems entailed by increasing work loads and burnout issues force the different management layers in a continuing dialogue with the employees in order to deal carefully with the fit between the worker and the job (Kwakman, 2001).

Developments within the Domain of HRD

Obviously, the previously mentioned developments have implications for the performances that are required and thus for the job content and organization of individual jobs (Torraco, 1999). More and more job requirements have to be expanded with key qualifications like eagerness to learn, flexibility, and readiness to work together in teams. Besides, vocational training is not enough to enable the employee to function qualitatively well throughout the career. Life-long learning and competence development is considered to be the key answer (Garavan, Heraty & Barnicle, 1999). Short-term attention for career development in which employees are used to fulfil organizational goals that do exist in the here-and-now do not longer guarantee the individual employability in a longer sense. Due to enormous changes in professional fields life-long employment has been replaced by life-long employability which can only be reached in case both management as well as the employee anticipate as to which professional developments have to be attained (Kwakman, 1999). The latter can imply that short-term goals are not longer put in front in each and every case. This brings about the challenging though difficult to reach need for HRD specialists to find an equilibrium between organizational interests (need for high performances) and individual interests, e.g. the need for self-actualization (Confessore & Smith, 1998).

The increasing attention for life-long learning has led to a change in the way learning processes are organized. More and more HRD specialists start to recognize the value of other forms of training and development, for example 'training-on-the-job', computer-supported programs, web-based learning, coaching and support on the job (Bassi, Cheney & Lewis, 1998). Besides, training and development is no longer seen as the only solution in order to build up new knowledge and skills. More and more, changes in the organization of work, such as introducing autonomous teams are seen as a possibility to enlarge competence bases (Stahl, Nyhan & D'Aloja, 1993).

The developments that have been outlined so far have altered the role of the HRD specialist. More than before, he or she has to act as a counselor who facilitates line management and individual employees in carrying out the employability-enhancing and learning activities (Ellinger, 1998). In order to integrate knowledge management and competence management into the domain of HRD-practitioners, one has to translate strategic decisions into HRD-policies throughout all organizational layers (Bassi et al., 1998).

Research Methodology

In order to gain insight into the extent to which practitioners agreed on current HRD developments and their impact as outlined in the theoretical paper, the literature results were discussed with them, using principles of the Delphi method. The Delphi method was originally developed by the Rand Corporation in the 1950s as a data collection approach designed for structuring group opinions in order to enable group decision making. By gathering expert opinions (within a homogeneous group of experts) about complex problems consensus is striven for. Consensus is reached by using different rounds of data collection; the researcher organizes, analyzes, and summarizes the different responses and asks experts to respond again. Experts are also asked to provide an explanation for their responses and these explanations play an important role in summarizing and adjusting different responses (Holsapple & Joshi, 2000). As the method is very useful to collect opinions about abstract and rather vague topics, the method is used frequently to anticipate future trends (Leirman, 1995; Ritchie & Earnest, 1999). However, most researchers use a variant of the original method, and a lot of variants have arisen in the literature (Leirman, 1995; Snyder-Halpern, 2001).

In this research we use the variant of the original method which is described by Leirman as a participatory Delphi. In a participatory Delphi an informed group presents all options and evidence for a specific line of reasoning or consideration in order to generate all possible opposing views. We used this variant as we aimed at consensus about the occurrence of current HRD developments in practice but we did not want to exclude opposing or new views otherwise. So, we decided to present the literature results to a group of experts in two rounds. In the first round we discussed our preliminary literature outcomes with a group of HRD practitioners and researchers. As we intended to verify and expand the outcomes, we asked for their opinions about the adequacy and validity of the current developments described. As a result of this, developments were refined, extended, and grouped otherwise whereas also more literature was studied. Then the final outline was written. In the second round we presented this theoretical outline to a group of experts during two working conferences. In these conferences participants were asked to state their opinions as well as reasons underlying their opinions. Participants were also asked to react as to what extent the outline sketches all relevant developments, as well as to sketch opposing viewpoints or experiences. The aim of the procedure was to answer the following questions:

1. To what extent are the developments that have been outlined in the research report significant for your organization?
2. Which developments in the domain of training and development have been taken place in your organization, during the last ten years?

Sampling was purposive, based on a "snowball" sampling strategy as one of the possible strategies in inductive, theory-building analysis (Miles & Huberman, 1994). We tried to compose groups of experts with equal job responsibilities but from different branches of organizations. Eventually, all experts involved were holding jobs, which involved large responsibilities for organizing and managing HRD within large organizations (in the profit- as well as the non-profit sector) in the Netherlands, so can be considered as a homogeneous group.

Results

In the following sections, the outcomes of the two working conferences will be reported. The categories of description are similar to the ones that have been used for the theoretical outlines.

Developments outside Working Organizations

The participating HRD specialists, when asked for external developments, mentioned on the one hand the importance of the 'human factor' and on the other hand the impact in the HRD field of the internationalization and globalization of markets as well as products. Next to these two main areas of change, some participants reported the influence of technological developments and the implications of the job market.

As far as the first factor is concerned, representatives of DAF and DaimlerChrysler gave a good illustration. Nowadays DAF offers solutions for mobility problems instead of producing cars, trucks etceteras. Because of the fact that unique products are created, individual employees are the most important organizational assets. Competencies have to be built up and quality management has to be a core part of HRM practices. At DaimlerChrysler the importance of the human factor has even been formalized. In order to reach high-quality Human Resource Management all HRM-instruments have been integrated and the responsibility for the employee development has been laid down with the employee him or herself. The individual workers are expected to formulate personal development goals and ideas to reach them. Secondly, the focus of the evaluation of the HRD professionals has been changed from their efforts in the area of training and development to the return of investments at the level of the behavior of the individual employee. The latter meaning that HRD-professionals have to make a connection between developmental needs of individual employees and organizational development goals.

As far as the internationalization and globalization are concerned we have five examples of the implications these developments have on a company level. ABN-AMRO has chosen for an approach that focuses on internationalization on an European scale. As a consequence, internal vocational training institutes have become smaller. Whenever possible, vocational training programs are outsourced and the department of training and development nowadays merely has directing and advising tasks.

For Toshiba Medical, the internationalization has led to an increasing pressure in terms of the time that is available to train employees. E-mail, globalization, a growing amount of foreign employees, and the need to commit higher level technicians to the company has led to the need for efficient training programs in much shorter time spans. The primary responsibility for assessing training needs has been moved to the line management in a continuous dialogue with the individual employee. The latter also applies to the TNT Post Group, a holding employing 120.000 people in 120 countries. This decentralization of the training and education function urges to a

translation of strategic higher-order issues to locally feasible practices. In order to provide with this need and to prepare trainers to enormous differences between countries, TNT Post Group has established an academy for trainers.

The fact that internationalization and globalization do not automatically lead to a decrease in training and development activities has further been illustrated by the HRD representative of PriceWaterhouseCoopers. Currently, their training budget is around one billion dollar. Their programs are clearly aimed at enlarging the commitment of the employee towards the organization together with enabling the professionals, who are supposed to be highly employable, to perform qualitatively high. In order to ensure that an employee is suitable to perform services for the organization's customers, a 'license to audit' has to be granted. Besides, team working is encouraged and is supposed to enlarge one's competence base by exchanging valuable knowledge and skills. For the department of T&D these developments have led to the system of 'contracting', i.e. preliminary to the performance of activities, agreements are made regarding who, when and where and what subject will be trained.

For Polaroid Europe we can detect a centralization tendency as a result of the internationalization. Although the different locations are expected to work closely with the central training department in the United States, in practice it is not quite clear in how far one is responsible for formulating strategic goals.

As far as the third factor, i.e. technological developments is concerned, both the representative of Hollandse Signaal Apparaten and the one of the Dutch Air Force went into its consequences. It was reported that next to information and communication technology, advanced technological knowledge of material and products is indispensable for current functioning of these working organizations. At Hollandse Signaal Apparaten one signals the need to get hold of experts both for internal use as well as for their customers. In order to respond to this need three different types of educational programs have been developed, i.e. education for their own employees, education for customers who have bought their materials, and education for their future customers.

For the Dutch Air Force, training and education has always been a focal point. The technical and highly specific requirements for flying a certain plane and also the demands of quality and safety have forced them to large investments in training and development. The responsibility for making reliable assessments of the training needs has been laid down at the line management.

As regards the last mentioned topic of the influence of the job market, three organizations have referred to it and have indicated its consequences in the domain of HRD. Because of the fact that the University of Twente has a surplus of employees in relation to the available jobs and the costs that are brought about by this, the University has started to pay attention to retraining and job market preparation programs. Next to a mobility center that has been established with the aim of enlarging one's knowledge and skills, outplacement programs have been developed.

In the Martini hospital, on the contrary, one has great difficulties to find qualified personnel. Part of the problem is due to the minor interest in health service jobs, but also the geographical location (in the North of the Netherlands). Aside from that, new strict laws concerning times to rest and recovery for health professionals have exaggerated occupational problems. Moreover, the dejuvenization and the aging of the working population necessitate paying attention to the implications of the increasing workload for the elderly. This urge the ARBO-dienst (services of conditions of employment) and the department of Training and Development to put the topic of the guidance of mobility and employability, and the ways this can be reached, high on the agenda. Similarly, the AWVN (General Employers' Association in the Netherlands) has made the topic of the guidance of employability to be the central point of attention. More emphasis on the individual career development and a broader definition of training goals are elevated into the key points of attention.

Comparing the developments mentioned in the theoretical outline one can conclude that participants do stress the same three main factors lying behind the current developments, i.e. economy, technology, and labor market. Although the outline also describes developments in the area of legislation, vocational education, or social-cultural developments, the participants did not mention about these particular developments. This does not imply that these latter types of developments do not occur, but that they are regarded of minor importance in affecting the HRD field.

Developments inside Working Organizations

As indicated in the corresponding section in the theoretical outlines, many organizations are forced to re-orientate on their organizational goals and to reconsider their present organization of jobs. Representatives from Generali Assurances, Canisius Hospital, Hoogovens and Connexxion give accompanying examples.

For Generali Assurances, the change towards a customer-oriented organization has led to a centralization of the output norms, i.e. customer satisfaction and cost awareness. Especially the focus on customer awareness has implied an enormous increase in training costs. At the Canisius hospital, the focus of customer satisfaction has led to multidisciplinary tasks for the medical staff. The department of training and education has been outsourced to the

ARBO-dienst (service of conditions of employment). Besides, a reorganization leading to a flattening of the organization has led to new HRD questions. Interdisciplinary team work for professionals and delegating management skills being two examples. In this hospital, competence management, broadening of tasks and learning strategies are key issues in current personnel management tasks.

At Hoogovens, a reorganization has led to the introduction of business units with their own responsibilities, and that are delegated to the line management, in order to upgrade the professional expertise of each individual employee. A problem one encounters is the lack of an overview of developments in the specific professional domains and in the training programs that are given. In order to enable the HRD function to facilitate business management in the different units, one should have more insight into the specific requirements in the jobs of the professionals in each business unit.

Connexxion, a transport company, which is the result of a fusion, concentrates on management development and education management in consideration of the guidance of competencies and in order to respond to the need for performance enhancement. Previously used job descriptions and performance evaluations are currently substituted by elaborated reports on systematically determining and developing competencies.

The perspective of the 'learning organization' forms the basis of the management philosophy of Gamma Holding, a textile industry company. Its philosophy is based on three conditions, i.e. delivering a high quality, using advanced technology and applying cunning logistics. In the Netherlands, Gamma Holding employs 2200 people, world-wide 10.000. A recent reorganization implied a change from a labor-intensive to a capital-intensive company meaning a change in range of products as well. At the moment one can characterize the company as process-driven and results-oriented, with a lot of investments in its innovative and technological capacities. Team building is used as a means to consciousness-raising for the philosophy of the learning organization. Competence management is one of the building pillars in this sense.

As far as the subject of commitment is concerned, a clarifying example can be found in the AKZO strategy where one, in order to enhance the individual commitment, puts a lot of energy in formulating norms and values people can identify with. Also at Connexion one tries to establish longer term working relationships by investigating which factors are highly valuable for people. For Hollandse Signaal Apparaten, on the other hand, commitment is not conceived to be a problem. The representative reports relatively long terms of duration of the employees within the company.

Comparing these examples with the theoretical outline, it is obvious that theory and practice both stress structural as well as cultural changes taking place within work organizations in order to attain organizational goals as well as to improve the level of performance.

Developments within the Domain of HRD

Apparently, in the outlines that are given up to now, one can detect a change in main strategy that can be characterized by means of a transition from 'education-minded' towards 'life-long learning-minded'. Many learning processes are founded on the need to enlarge one's employability. For example, the Rabobank (a Dutch banking organization) academy has formulated as its aim; the transition from lifetime employment towards life-long employability. Besides, the representative reports that more and more attention is paid to working in multidisciplinary teams, guiding one's own career, taking initiatives and pro-active thinking and acting.

The Dutch Railways has established a mobility center that both supports employees and prevents career problems. Each employee is enabled to have a career advice every three years. The Academic Hospital in Utrecht, nowadays, pays more attention to Human Resource Management activities because of the fact that there is too much outflow of personnel. Firstly, more training and education possibilities have been created. Secondly, a job satisfaction survey has been done and finally, measures to enlarge the amount of job satisfaction have been undertaken.

In all examples mentioned before one can detect a trend in which the responsibility for HRM activities are laid down with the line management. More and more HRD specialists act as advising partners (see for example at Start, an employment agency in the Netherlands). Training and education are more than ever outsourced while the existing departments of training and education are used especially for management development trajectories (see for example the so-called Business School at the AWVN (General Employers' Association in the Netherlands).

At Vredestein, the HRD managers take care of signaling new developments, trying to find possibilities in the job market, formulating strategic plans and so on, while in the past they mostly spent a lot of time taking care of all training and education activities.

As far as competence management is concerned, the representative of PriceWaterhouseCoopers mentioned the birth of new jobs in the field, like knowledge managers, electronic learning experts and information technologists.

All these jobs are aimed at building up knowledge and skills bases in individual employees throughout the organization and in an on-going sense, i.e. during the entire career.

In comparison with the theoretical outline, a first impression of the developments mentioned by practitioners is that they resemble the developments determined theoretically to a large extent. However, a shift in the way learning processes are organized, as predicted in theory, can hardly be recognized in practice. Although the need for this shift is recognized in practice, examples of other ways of organizing learning are hardly given. This may lead us to conclude that the undertaken activities are not in line yet with the ideas and wishes in this respect.

Conclusions including Contribution to New Knowledge in HRD

The confrontation between theory and practice that was deliberately staged in the working conferences appeared to be fruitful as it yielded some new insights to our theoretical views. Firstly, a diversity of working organizations largely recognizes the developments as described in literature to a certain extent. So, the outline appears to be suitable to describe and further analyze HRD developments. Nevertheless, all experts agreed that it only suits large organizations or multinationals, and that it does not apply to small and medium sized enterprises as well as to non-governmental organizations. It was also remarked that the outline should pay more attention to international developments, as a lot of organizations will face an increasing globalization and internationalization.

Secondly, although the experts recognized and consolidated a lot of different developments, it became clear that not all developments are of equal importance within specific organizations in the same time period. Organizations do face several challenges, which may be provoked by developments as described, but precise implications of different developments vary from organization to organization. As illustrated one specific development can lead to a large variety of different consequences, dependent on the context and the extent to which other developments apply. This is partly due to the fact that many of the developments are intertwined, so that it is not easy at all to differentiate between the developments that have been outlined.

Thirdly, we also have to conclude that almost all HRD developments derive from developments both inside as well as outside organizations because of the fact that HRD activities and goals do change as a result of these developments. Consequently, developments regarding the HRD-domain hardly arise from the domain itself, as the domain is mostly reactive to outside changes and to new demands and challenges. What makes it even more complex is that responses of the HRD-domain seem to vary according to the specific situation of the organization. As the results reveal, every organization takes other measures to cope with new developments. Actually, this is in line with other reviews of HRD developments and functions which apply also outside the Netherlands (Baets & Van der Linden, 2000; OECD, 2000; Garavan et al., 1999; Willmore, 1999).

Thus, similar developments going on outside organizations do influence HRD and HRD responses within organizations, but they do not automatically lead to the same types of responses (Poell & Van der Krogt, 2001). Obviously, processes and dynamics within organizations seem to play a major role in determining these responses. Understanding these processes and dynamics may be a new topic in HRD research that will deliver worthwhile insights to better understand HRD practices.

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A Design Methodology For Complex (E)-Learning

Theo Bastiaens
Jeroen van Merriënboer
Bert Hoogveld
Open University of the Netherlands

Complex cognitive tasks that must be performed by humans because they require flexible problem solving behavior are becoming increasingly important. The basic message of the 4C/ID-model that is introduced is that environments for complex learning can always be described in terms of four interrelated blueprint components. These components are based on the four categories of learning processes that are central to complex learning: learning tasks, supportive information, just-in-time information and part-task practice.

Keywords: Instructional Design, Competency-bases Learning, Complex Learning

Instructional design is a bit like an aging ocean liner – huge, slow, ponderous and requiring large amounts of energy and a great deal of time to move it even one degree off its traditional track. Despite extraordinary recent advances in research on learning, particularly from the newer cognitive theories, mainstream instructional design models remain largely unchanged.

While most design models have not evolved over time, HRD specialists in business and contemporary educators are searching for models that accommodate novel and complex delivery vehicles such as newer media and Internet/Intranet platforms. The modern context in which design is employed is in constant flux. Business and educational institutions are concerned with the need to proactively accommodate rapid and intricate, systemic changes. Most businesses have recognized the need to capture complex expertise and rapidly transfer it within and between organizations and communities. Current approaches to handling change emphasize the need to identify the knowledge and performance competencies required to close gaps between future social and organizational goals, on the one hand, and the current status of organizational and worker performance, on the other hand. The need for design systems that can be used to close complex, interrelated performance gaps caused by the need for complex, interrelated knowledge structures and strategies, are largely unmet by most current models.

The growing importance of distance learning in business, government and schools also contributes to the urgency of change. The knowledge required to support the continued success of organizations is complex and changing quickly over short periods of time. These changes will continue to place demands on the human resource specialists charged with providing the design systems that support the training, development and performance of workers. Adequate design models must flexibly adjust to advances in our understanding about how to draw on cognitive research on expertise and learning, and incorporate it effectively and efficiently into evolving instructional design theories.

Van Merrienboer (1997) introduced the four-component instructional design model (4C/ID-model), which is a design methodology for competence-based education. The basic message of the model is that well-designed learning environments can always be described in terms of four interrelated blueprint components: (1) *learning tasks*: concrete, authentic "whole-task experiences" that are provided to learners; (2) *supportive information*: information that is supportive to the learning and performance of non-routine aspects of learning tasks, such as reasoning and problem solving; (3) *just-in-time information*: information that is prerequisite to the learning and performance of routine aspects of learning tasks, and (4) *part-task practice*: additional exercises for routine aspects of learning tasks for which a high level of automaticity is required. The interrelationships between the four components are depicted in Figure 1. Each of the four components will be briefly discussed in the following sections.

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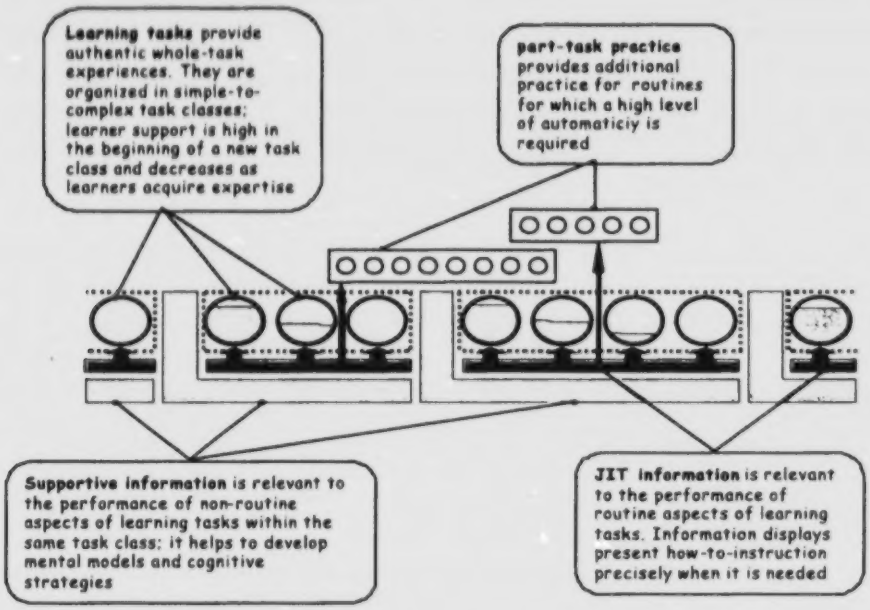
Figure 1. The four components of the 4C/ID model


Learning tasks provide authentic whole-task experiences. They are organized in simple-to-complex task classes; learner support is high in the beginning of a new task class and decreases as learners acquire expertise
part-task practice provides additional practice for routines for which a high level of automaticiy is required
Supportive information is relevant to the performance of non-routine aspects of learning tasks within the same task class; it helps to develop mental models and cognitive strategies
JIT information is relevant to the performance of routine aspects of learning tasks. Information displays present how-to-instruction precisely when it is needed

Learning Tasks

A sequence of learning tasks is the backbone of every course. The learning tasks are typically performed in a real or simulated task environment and provide "whole-task practice": ideally, they confront the learners with all aspects of the whole complex skill. However, it is clearly impossible to provide highly complex learning tasks right from the start of a course. Therefore, learners will typically start their work on relatively simple learning tasks and progress towards more complex tasks. Task classes are used to define simple-to-complex categories of learning tasks and to steer the process of selection and development of suitable learning tasks. The learning tasks within a particular task class are equivalent in the sense that the tasks can be performed on the basis of the same body of knowledge, but they are different from each other on the dimensions that also vary in the real world (i.e., they show a high variability; see Paas & van Merriënboer, 1994). A more complex task class requires more knowledge or more elaboration of knowledge for effective performance (cf. Elaboration Theory; Reigeluth, 1999). The basic idea is to use a whole-task approach where the first task class refers to the simplest version of whole tasks that experts encounter in the real world. For increasingly more complex task classes the assumptions that simplify task performance are relaxed. The final task class represents all tasks, including the most complex ones that experts encounter in the real world.

While there is no increasing complexity for the learning tasks within one task class, they do differ with regard to the amount of support provided to learners. Much support is given for learning tasks early in a task class, and no support is given for the final learning task in a task class. This process of diminishing support as learners acquire more expertise is called "scaffolding". It is repeated for each subsequent task class, yielding a sawtooth pattern of support throughout the whole course program. Support can take the form of product-oriented or process-oriented support. For product-oriented support, part of the solution is provided to the learners as part of the learning task. For instance, one might ask students to study a case or to complete a partial solution – activities that clearly provide more support than independent problem solving. With process-oriented support, the learners are guided through the problem solving process. For instance, one may require students to successfully complete one problem solving phase before continuing to the next phase, or present them with "process worksheets" – lists of leading questions that guide them through a systematic process.

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Supportive Information

Obviously, learners need information in order to work fruitfully on non-routine aspects of learning tasks and to genuinely learn from those tasks. This supportive information provides the bridge between what learners already know and their work on the learning tasks. It is the information that teachers typically call "the theory" and which is often presented in study books and lectures. Because the same body of general knowledge underlies all learning tasks in the same task class, and because it is not known beforehand which knowledge is precisely needed to successfully perform a particular learning task, supportive information is not coupled to individual learning tasks but to task classes. The supportive information for each subsequent task class is an addition to or an elaboration of the previous information, allowing the learners to do things that could not be done before.

Supportive information relates to mental models (describing how the world is organized in a particular domain) and cognitive strategies (describing how to effectively approach problems in this domain). The supportive information concerning mental models may contain both general, abstract knowledge and concrete cases that exemplify this knowledge, so that it allows for both abstract and case-based reasoning. Conceptual models (what is this?) focus on how "things" are interrelated and allow for the classification or description of objects, events or activities; structural models (how is this organized?) describe how plans for reaching particular goals are related to each other, and causal models (how does this work?) focus on how principles affect each other and help to interpret processes, give explanations for events and make predictions. Cognitive_strategies also contain general, abstract knowledge and concrete cases that exemplify this knowledge. The general, abstract knowledge typically takes the form of a Systematic Approach to Problem Solving (SAP), describing the successive phases in a problem solving process and the rules-of-thumb or heuristics that may be helpful to successfully complete each of the phases. The concrete cases may refer to an expert who is performing a non-trivial task and simultaneously explaining why he is doing what he is doing (e.g., by thinking-aloud).

Just-In-Time Information

Whereas supportive information pertains to the non-routine aspects of a complex skill, just-in-time (JIT) information pertains to the routine aspects, that is, sub skills that are performed after the course program in a highly similar way over different problem situations. JIT information provides learners with the step-by-step knowledge ("how-to-instruction") they need to know in order to perform the routines. They can be in the form of, for example, directions teachers or tutors typically give to their learners during practice, acting as an "assistant looking over your shoulder" (ALOYS) or the procedural steps provided by an Electronic Performance Support System (EPSS). Because the JIT information is identical for many learning tasks, which all require the same routines, it is typically provided during the first learning task for which it is relevant. For subsequent learning tasks, JIT information quickly fades away as the learners gain more expertise (a principle called fading).

JIT information is organized in small units, called information displays. Organization in small units is considered to be essential because only the presentation of relatively small amounts of new information at the same time can prevent processing overload. Information displays include a didactical specification of the procedures that describe correct performance as well as the knowledge that is prerequisite to a correct application of those procedures. For instance, a procedure may state that "in order to start the machine, you must first switch it on" and also indicate that the on/off-switch is located on the back of the machine (i.e., a fact that is prerequisite to a correct application of the procedure). If necessary, the general information may be illustrated by demonstrations of procedures (e.g., a teacher demonstrating how the switch on the machine) and/or instances of concepts (e.g., a photograph of the machine showing the location of the on/off-switch).

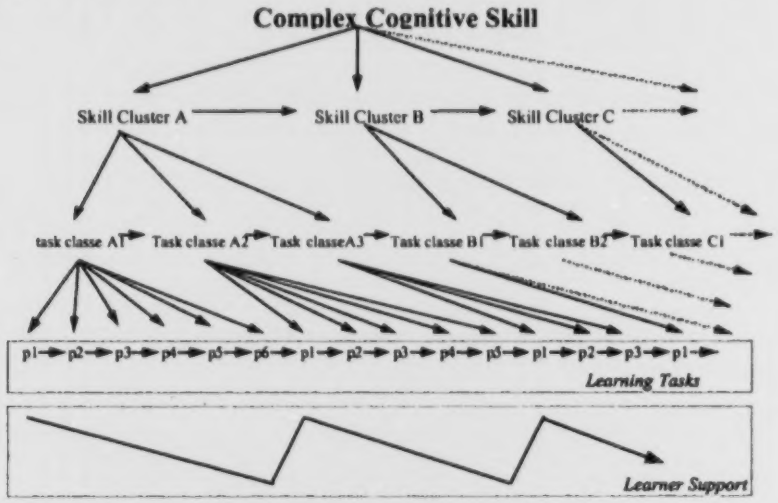
Part-Task Practice

Often, learning tasks provide enough opportunity to practice both the non-routine and routine aspects of a to-be-acquired skill. However, if a high level of automaticity of particular routine aspects is required the learning tasks may provide insufficient repetition. Then, it is necessary to include additional part-task practice for those selected routine aspects in the course program. Well-known examples of part-task practice are letting children drill on multiplication tables, playing scales on musical instruments, or training medical students in reanimation techniques. In course design, part-task practice may be applied for routines that (1) are critical in terms of safety, (2) enable the performance of many other skills, or (3) are performed simultaneously to many other skills.

It is critical to start part-task practice within an appropriate "cognitive context" because it has been found to be effective only after exposure to a simple version of the whole complex skill (see van Merrienboer, 1997). One should thus identify the first task class for which performance of the routine aspect is required, and initiate part-task practice during this task class, preferably after learning tasks with ample learner support have already been worked on. This allows learners to identify the activities that are required to integrate the routine aspect in the learning tasks. Extensive amounts of over learning may be necessary to make the routine fully automatic.

Complex learning is always involved with integrated sets of learning goals, or, multiple objectives. It has little to do with reaching separate objectives, but it is foremost dealing with learning to coordinate and integrate objectives in real-life task performance. Thus, in complex learning the whole is clearly more than the sum of its parts because it also includes the ability to coordinate and integrate those parts. The model pays attention to the integration and coordination of constituent skills (skill clusters), and concurrently promotes schema construction for non-recurrent aspects and rule automation for recurrent aspects of the complex target skill (figure 2). By doing so, it aims at transfer of learning – the ability to apply the complex skill in a wide variety of new real-life situations.

Figure 1. Outline of the 4C/ID model



Didactical Models for Integrated (E)-Learning

The four components above can be identified in almost all blueprints of integrated learning, including blueprints for integrated e-learning. The learning tasks are in fact generic and can include for example cases, projects, problems etcetera. In this paper two examples of approaches are presented and the four components are explained in detail. The first example is a case based approach to integrated e-learning, the second approach is a project-centered approach.

Case-Based Approaches

In case-based approaches of competency based education, cases function as the basic format of learning tasks. A case is defined as a complex real event (from the viewpoint of a professional) in which typical aspects or instances of professional task performance or professional problem solving can be observed. It can be used to offer students opportunities to learn or to get familiar with different faces of professional tasks. A case can be considered as a 'frozen experience', in the first place because students can observe, study, and analyse real problems in their natural context, but without time constraint. Second, learners are allowed to make other decisions, may make mistakes and learn from them: there are no dangerous consequences of mistakes, while at the same time the authenticity of the situation remains completely intact. Case-based learning is a powerful way of learning because it integrates various

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aspects of tasks in a significant learning context and because it offers excellent opportunities for learners to 'construct' tasks, look at professional problem solving, discuss the value of alternative approaches and solutions.

A case can be constructed by careful analysing how professionals work while carrying out tasks or solving problems. Construction is facilitated by searching for reasons to freeze the event, in time or in complexity. Once that one has found freezing possibilities, all the information that describes the context of the situation till the freezing point or event is documented for students' use. Students can build an idea of the situation. In combination with a clearly defined task students will try to find a solution for the problem or bring the task to an end. From that moment on the way the problem was solved in the case is no longer relevant for the case designer, nor for the student, who indeed has to take over problem solving. The case design enables the teacher-designer to present to the students enough information for sufficient analysis of the professional's problem and a clear learning task will challenge the student to solve the problem. Good case designs support the solving of the problem by providing the students the cognitive strategies and mental models used by professionals in these type of problem solving before they start the task. In the 4C-ID model this is called: 'supportive information'. Any factual information about procedures is during the learning task directly available in the learning environment.

An example of the translation of the four components of the instructional design model in the case- based approach is the following series of cases. The example stems from the experience of the Open University of the Netherlands.

Since 1998 the education of senior public administrators consists of a series of cases with which the students learn professional systematic approaches for the design of policy documents and for solving problems of policy making. Each of a series of 12 *learning tasks* is supported by four cases. Examples of these professional tasks, to be learned are analysis and preparation of policy decisions, design of policy documents, collecting documentation and anticipation of expected policy decisions. The learning tasks are made available on the course website. This website also serves as delivery medium for the case descriptions and it encloses a database of available case-sources. The *supportive information* consists of a methods-database, and a database with descriptions of all the theoretical principles, available in the domain. Both databases can be searched thematically or with help of a search engine. The *just-in-time information* consists of descriptions and concepts to be used in the particular case. Students' activities are monitored by tutor/teachers. By e-mail or in the discussion groups tutors give feedback on assignments. This system of competency based e-learning replaces traditional knowledge oriented learning in the faculty of Public Administration. Students evaluate this change as positive and more challenging.

Project-Centered Approaches

The project-centered learning approach is based on the 'learning by doing' assumption which means that students are actively involved- and responsible for their own learning process. In this approach students work systematically together on a 'project'. A project is defined as a unknown non routine problem which has to be solved. This problem has to be true to life and embedded in a social context. This is also referred to as authenticity.

The project-centered approach distinguishes several phases. All necessary activities are split up in logical steps and phases. On a certain moment in time students have to make decisions in a phase which have an impact on the following phase and the continuation of the project. Special attention has to be pay to control activities as time, money, quality, information, communication and organisation. The students work relatively independent as a group. The teacher monitors the learning process as a coach. Every phase is completed after an assessment of the process and/or relevant product.

In fact this approach links up with project based working methods which are common practice in business and industry these days.

The range of project centered learning is based on the following 3 dimensions:

- Authenticity of a problem: When a closer look is taken at the problem within the approach it is possible to define a gradation in the authenticity of a problem. Discerned are real problems which are related to existing problems in real life, and so called virtual problems which are a simulation of actual problems.
- Extend of control: The extend of control is based upon self control or external control. Self control means that the project members have a great deal of freedom in their way of working and can make a lot of decisions on their own. External control means for example that the phases are set by the coach and that the freedom to decide is limited to minor problems.

- Level of implementation: The project-centered learning approach is often used as an education model (for the sake of the curriculum), meaning that it is used as a model to integrate all different courses in one. Students work on one set of problems in different disciplines.
It is also possible to use this approach as a didactical model (as a working method in a single course). Students work together on one problem in one discipline.

An example of the translation of the four components of the instructional design model in the project-centered approach is the following: Students in business studies work together in a 'virtual' student company. In this company they have to produce and sale real products and run the comp any on the basis of investors (parents), stocks etc. The formulated problem is 'run the business for half a year, put theory into 'practice' and be as profitable as possible'. In our instructional design model this is *the learning task*. All the students get their own responsibilities formulated as roles. We discern for example a CEO, a financial planner, a marketing and sales man, a chief production and five employees. They can, while running their business, use different suggested readings on management, marketing, production etc. This theoretical knowledge is *supportive information*. During the project they can get for example just-in-time financial information on results on sales, budget, marketing. This is *just-in-time information*. In their roles students sometimes need training and practice in role specific skills like presentation skills for the sales man or calculating for the financial man. These are examples of *part-task practice*. The whole project is centered around a virtual e-learning environment which supports the project with supportive and just-in-time information and different tools to communicate and work together as a group. Computer Supported Collaborative Learning is a key issue when the project-centered learning approach is related to e-learning.

Mixed Approaches

When a closer look is taken at the differences and similarities between the two above mentioned approaches we see that it is possible to combine them. For example it is possible to work together in a group systematically on the solution for a virtual problem which happens to be a case. Or it is possible the learn case-based as a project team. We can even make it more complex if we integrate other approaches as competency based learning, dual learning or problem based learning. All approaches have a unique theoretical foundation which in practice is often combined with other approaches. This is very well possible because all approaches try to stimulate the transfer of learning by combining working and learning. All approaches also integrate tasks, learning and information in a specific context. It is not necessary to stick to the specific ground rules of every approach as long as we stick with our (e) learning initiative to the commonalties. The 4C/ID-model provides diverse guidelines and heuristics for the development of training programs for complex (e)-learning. It embodies an integration of theoretical developments and empirical results originating from a large number of research projects involved with the training of complex cognitive skills on a more traditional and electronic way.

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Fusion of E-Learning & Knowledge Management

Steve Downey
National Center for Supercomputing Applications

Reed Stuedemann
Caterpillar University

Mark Van Buren
ASTD

Tim L. Wentling, Session Chair
University of Illinois at Urbana-Champaign

Traditionally knowledge management (KM) has been well position within corporations (Barron, 2000). What has been less certain is how to use the information retained by KM practices to improve employee performance. Researchers are investigating how KM data/objects can be fused with e-Learning practices to produce meaningful, effective, performance enhancing solutions. This panel will discuss the current states of the e-learning and knowledge management fields, factors potentially influencing the merging e-Learning and KM, future research avenues, and visions of the future.

Keywords: E-Learning, Knowledge Management, Systems/Application Design

"In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge" (Harvard Business Review, 1998). It is the only renewable resource that an organization can capture, manipulate, and create to its advantage (Huseman and Goodman, 1999). Yet, knowledge is an elusive asset (Watkins, 1999); it is continually at play within organizations and in individuals. How is knowledge created? How is it stored? How is it lost? These are all issues of central concern to knowledge management. They also are the same issues of concern to learners and educators. With the growing usage of technology in and for learning, they are becoming the issues of concern for system designers and software engineers.

Ausubel (1968) in his classic work, *Educational Psychology: A Cognitive View*, wrote how important it was to make learning meaningful to the learner. In traditional classroom environments, this meant integrating curricula across disciplines. In e-Learning environments, this means utilizing a knowledge base containing a collection of objects that have emerged out of real life problems and situations and which have direct application to the learner's job. It is this notion of integrating meaningful content, extracted from organizational knowledge bases, into organizational training environments that prompted early proponents of e-Learning / knowledge management mergers to begin exploring the idea of using an integrated approach. "In a mature e-Learning and KM implementation, knowledge workers will tap the same knowledge well for targeted e-Learning, unstructured information, in-house experts, and outside resources" (Barron, 2000).

This session presents the opportunity to initiate and continue a focused discussion on the fusion of e-Learning and knowledge management practices. The panelists participating in this session represent researchers, practitioners, and software system designers involved in the fields of e-Learning and knowledge management. They will begin this on-going discussion by sharing their findings and experiences during this session and then discussion will be continued in a learning community that will emerge from the session itself.

Session Objectives

Dialogue will be directed by the session Chair. In addition, each of the five panelist will promote discussion further by soliciting input and sharing of ideas of unique interest to themselves and the group as a whole. During the discussion, attention will be directed towards, existing research, potential barriers and benefits to merging e-Learning and knowledge management practices, and establishing a practical research model. As a result of these discussions, this session hopes to achieve the following objectives:

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Analyze the current state of e-Learning

- Enumerate components of knowledge management
- Describe factors influencing merger (technologies, human nature, organizational culture)
- Evaluate benefits/limitations of merging e-Learning and knowledge management
- Establish community of learners interested in the integration of e-Learning and knowledge management

Session Content

As recommended in the request for proposals, the session will be very flexible with specific topics being dictated by the audience members themselves. Listed below are a few of the topics and questions expected to arise during the session. Bear in mind, these items are simply guidelines for the expected flow of the session. Discussions will not be limited to these areas and will flow and adapt as the audience dictates.

- Given the research in the field, how would you describe the current state of e-Learning?
- What aspects of e-Learning have progressed furthest in the last three years?
- What aspects do you foresee progressing the most in the next three to five years?
- There is a lot of differing opinions as to what constitutes knowledge management; how do you view it?
- What factors traditionally have played the largest role in the deployment/utilization of knowledge management systems?
- How does culture (national, profession, or organizational) influence knowledge management?
- What benefits, if any, might an organization receive by merging e-Learning and knowledge management?
- What barriers traditionally have prevented the merging of e-Learning and knowledge management?
- To what degree does technology impact the adoption of systems (e-Learning or knowledge management) in organizations?
- What are some possible approaches/models that might be employed in merging e-Learning and knowledge management?
- What questions or research must be addressed in order to realize the concept of an integrated e-Learning/knowledge management system?

In addition to panelist addressing these questions, audience members will be solicited to share their insights and experiences with e-Learning and knowledge management. In doing so, we seek to attain a higher level of engagement with the audience thereby making the activity more meaningful and directly applicable to their personal and professional pursuits.

Outputs

Two primary outputs will emerge from this session. First, audio and summary transcripts of the session will be produced and made available online. Second, a learning community will be formed of researchers and practitioners interested in the integration of e-Learning and knowledge management; details follow.

Audio and Summary Transcript.

A facilitator will record noteworthy comments, questions, and ideas on a flip chart with a summation of the notes being provided online at the Knowledge and Learning Systems Group's web site <http://learning.ncsa.uiuc.edu/>. In addition, attempts will be made to capture conversations from the session for production of a streamed audio recording to accompany the written summary transcript. The resulting two learning objects will be housed in the KLSG's online repository for access by the general public and by members of the e-Learning/knowledge management learning community described in the following paragraph.

Learning Community

Establishment of an online learning community serves to not only continue sharing the experiences and acquisition of new information pertaining to e-Learning and knowledge management by its members but also will serve as a mechanism for participation in the development and testing of new learning and information management

systems currently under development at the National Center for Supercomputing Applications on the University of Illinois campus.

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Sales Superstars: Defining Competencies Needed for Sales Performance

Darlene Russ-Eft
Edward Del Gaizo
AchieveGlobal, Inc.

Jeannie Moulton
GroundWork

Ruth Pangilinan
Independent Consultant/ Researcher

The purpose of this study is to determine the competencies needed by sales professionals. A total of 222 salespeople, 107 sales managers, 37 customers, and 6 others who refused to indicate their role completed critical incident questionnaires, resulting in 1688 critical incidents. The analysis revealed 16 competencies that defined five different roles of a salesperson: Long-term ally, business consultant Strategic orchestrator, consistent cultivator, and focused optimist. Implications are drawn for the organization and for HRD researchers and practitioners.

Key Words: Sales Performance, Competencies, Critical Incidents

Effective selling of goods and services is critical to the success of economic organizations. According to the Bureau of Labor Statistics (1997), 13,900,000 individuals were employed in sales and marketing jobs in the United States in 1992. By 2005, sales jobs are projected to increase by 18 percent (Vinchur, Schippmann, Switzer, & Roth, 1998). Today's complex selling environment, with technological changes and global competition, has altered the definition of what it takes to be a truly successful salesperson. What does it take to excel at sales these days? What separates top performers from merely good performers? The purpose of this research is to answer these questions and to examine the factors leading to sales success.

Theoretical Framework

Meta-Analyses of Characteristics

Churchill, Ford, Hartley, and Walker (1985) and Ford, Walker, Churchill, and Hartley (1987) used meta-analytic techniques to examine a range of personal characteristics affecting sales success. Both studies found that many of these variables were moderated by customer type and product type and that nearly all the variables were poor predictors, regardless of the customer or product type. A decade later Vinchur, Schippmann, Switzer, and Roth, (1998) conducted another meta-analysis of predictors of job performance for salespeople. Vinchur et al divided the analysis into subjective (ratings of supervisors and others) and objective (sales volume) indicators of performance and found that predictors differed depending upon the outcome measure. These results are discussed in detail below.

Cognitive Ability

The earliest published research report on sales performance looked at the "mental ability" of sales clerks in department stores (Oschrin, 1918). Throughout the next five decades, tests of cognitive ability (aptitude) were the most commonly used selection instruments of salespeople (Schmidt & Hunter, 1981). Individual research studies, however, showed mixed results in the tests' ability to predict sales performance (Schmidt & Hunter, 1981), leading some to assert that product knowledge (Baier & Dugan, 1956) or personality (Miner, 1962) were better predictors.

During the 1970s, however, a quantitative meta-analysis methodology was developed to look at cognitive ability as a predictor of performance (Hunter & Hunter, 1984; Schmidt, Hunter, & Pearlman, 1981). Churchill et al (1985) found the relationship between aptitude and sales performance to be mixed (correlations ranging from 0 to .85, with a weighted mean correlation of only .138). Vinchur et al (1998) calculated overall cognitive ability to correlate with subjective ratings criteria of job performance at .40 but with objective sales criteria at only .04.

Across all jobs, the validity of cognitive ability as a predictor decreases as job complexity decreases. Hunter and Hunter (1984) ranked the job of "salesperson" very high in complexity and that of "sales clerk" very low. This

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difference in the cognitive ability associated with different levels of sales job complexity may account for the inconsistency in the findings of Schmidt & Hunter (1981), Churchill et al (1985), and Vinchur et al (1998).

Personality

The largest numbers of empirical studies of sales performance focus on personality. In 1926, George Gallup used a battery of tests to describe successful salespeople in an Iowa department store. He concluded that it was personality traits, not mental ability or interests, which distinguished good from bad salespeople, but that no instrument had been developed to measure such traits (Gallup, 1926). Researchers failed to link personality traits to job performance because of a lack of a sound model (Dodge, 1938; Hampton, 1941; Miner, 1962, Rodgers, 1959).

Employers' use of personality tests peaked in the 1960s and rapidly declined because of a lack of correlations with job performance (Mount & Barrick, 1998). By the early 1990s, interest in personality-performance correlations increased (Barrick & Mount, 1991; Hogan & Hogan, 1989; Hough, Eaton, Dunnette, Kamp & McCloy, 1990; Tett, Jackson, & Rothstein, 1991). Barrick and Mount (1991) used the Five Factor Model or the "Big Five" from industrial/organizational psychology (Digman, 1990) and reported on meta-analytic work that confirmed five major personality factors: Extroversion, Emotional Stability, Agreeableness, Conscientiousness, and Openness to Experience .Using this Model, Barrick and Mount were able to demonstrate a strong correlation [.22] between the personality trait, Conscientiousness, and successful job performance in five occupational groups, including sales. By the end of the decade, fifteen meta-analyses on personality and job performance had been conducted, including one conducted within the European Community (Saldago, 1997), all supporting the findings that personality traits could predict job performance (Mount & Barrick, 1998) as well, if not better, than cognitive ability (Kierstead, 1998).

More recently, Vinchur et al (1998) used a modified version of the Five Factor Model, separating out Achievement and Dependability (sub-dimensions of Conscientiousness) and Affiliation and Potency (sub-dimensions of Extroversion). The researchers found Potency (.28) and Achievement (.25) to be the strongest predictors. The study also found the broad dimension of Conscientiousness to correlate with job performance at .21.

Interests

There is relatively little recent research on the relationship between vocational interests and success in sales. Early tests attempting to measure interests and preferences were found to be unreliable (Craig, 1925; Freyd, 1926). The most well known instrument for measuring interests is the Strong Interest Test, which has been in used since it was devised in the 1920s. Strong (1934) conducted validation studies of his test among life insurance agents and concluded that successful agents score higher in life insurance interest than unsuccessful agents and than men in general. Based on a small number of studies, Vinchur et al (1998) reported a high correlation (.50) between "interest in sales" and successful performance. Despite this result, further research on this variable has not been forthcoming.

Personal History and Biodata

As early as 1925 researchers looked at the predictive validity of an application form detailing work experience (Manson, 1925). Subsequent attempts to use personal history accounts, including family and school experience as well as work experience, had mixed results (Baehr & Williams, 1968; Worbois & Kanous, 1954). Nevertheless, by the 1980s many companies were using "biographical inventories" or biodata tests, for selection.

Early meta-analyses of performance across a range of jobs found a correlation with biodata tests to be .38 (Reilly & Chao, 1982) and .34 (Dunnette, 1972). The validity of biodata tests used in the selection of life insurance salespeople appears to vary according to how the company using it managed the recruiting and selection process (Brown, 1981), and biodata tests may be more useful for identifying candidates who are potential failures but less useful for predicting who will be successful (Brown, Stout, Dalessio, & Crosby, 1988).

Based on eight studies of "personal experience," some of which include age and other personal factors as well as work experience, Vinchur et al (1998) found a correlation coefficient of .52 in studies using subjective criteria and a coefficient of .28 in studies using objective criteria. Although showing a stronger relationship than that of Conscientiousness as a personality trait, the factor of "personal experience" has received relatively little attention.

Sales ability has been measured by tests of skills and knowledge pertinent to the job of selling. These tests range from broad instruments with general use to tests designed specifically for a particular type of sales job in a single organization. In their meta-analysis, Churchill et al (1985) found a correlation of .268 between sales skills and job performance. Based on small sets of studies, Vinchur et al (1998) report correlations between "sales ability" and successful performance of .45 for studies using ratings and .37 for those using objective measures.

Competencies

More recent work has focused on competencies needed for sales performance. Competencies focus on the behaviors exhibited by the person on the job (McClelland, 1973; McClelland, 1998; Cherniss, 2000). As an example, sales agents at a large cosmetics company selected based on competencies sold more in volume and had less turnover during the first year than those selected using the company's conventional procedures (Spencer & Spencer, 1993; Spencer, McClelland, & Kelner, 1997). Del Gaizo, Erdman, and Corcoran (1996) reported on sales performance competencies gathered in studies undertaken in the early 1990s. Their work identified three roles of a salesperson: Long-term ally, business consultant, and strategic orchestrator.

Research Questions

Much of the research on sales performance, even the meta-analytic work, comes from research undertaken decades ago. Thus, the primary purpose of this series of studies is to determine the ways in which the competencies needed by today's salespeople may be changing. What changes, if any, are taking place in the sales function? What are the competencies needed by salespeople in today's organizations? To what extent do salespeople, managers of these salespeople, and customers identify the same competencies?

Methods

Study 1

The main purpose of this study was to identify changes in trends in approaches to selling.

Sampling. The study focused on organizations with as 100 to more than 10,000 employees. Organizations were selected based on their reputation for superior sales and marketing, as identified in the United States by *Sales and Marketing Management* magazine. They included all business sectors (heavy manufacturing, high-tech manufacturing, financial services, health and social services, business services, retail and distribution, transportation and utilities, government and education). The contact person was the vice president of sales or human resources

Data Collection. A total of 24 telephone interviews were conducted from mid-February to mid-April 2000 in the U.S. This represented a 48% response rate (or 24 of the 50 people contacted). Interviews lasted about 45 minutes, although in a few cases interviewees chose to write their responses and return them by e-mail.

Study 2

The main purpose of Study 2 was to identify the competencies needed by successful salespeople. The study updates previous research on sales (Coker, Del Gaizo, Murray, & Edwards, 2000; Del Gaizo, Erdman, & Corcoran, 1996).

Sampling. The study focused on organizations ranging from 100 employees to more than 10,000 employees. They represented all business sectors and were located in Atlanta, Boston, Chicago, Los Angeles, New York, San Francisco, and San Jose. Participants in the study were salespeople, managers of salespeople, or customers of salespeople. They were identified by a contact person within each organization. The final sample included 222 salespeople, 107 sales managers, 37 customers, and 6 others who refused to indicate their role.

Data Collection. Written questionnaires asked respondents to describe both positive and negative critical incident questions: Think of a recent time when you or someone else made an important sale; and Think of a recent time when you or someone else failed to meet expectations in sales performance. These were followed by probes to clarify who was involved and what happened. The questionnaires were administered in group sessions.

The power of the critical incident methodology is that it asks people for top-of-mind recollections— sales interactions that made enough of an impression to be memorable, either positively or negatively. The result is a series of often small but telling moments which, taken together, define the realities of good and bad sales performance. (See Russ-Eft, 1995 for more discussion on the use of the critical incident method.) The critical-incident methodology does not involve a statistical analysis of a representative sample; rather its purpose is to uncover the full range of critical attributes that comprise sales performance.

Analysis. The responses to each question were entered into a database along with information identifying the characteristics of the participants. Each incident identified as "critical" by the respondent, or judged by the analyst as so intended, was considered as a separate event. If a response included more than one incident, duplicates of the entire response were entered as separate incidents. This procedure permitted the analyst to review the different

incidents for classification purposes, while still being able to identify the entire response. Analysis of the incidents followed the guidelines set forth by Flanagan (1954, 1974) and detailed by Russ-Eft (1995). Three experts with over five years of experience in sales and sales functions undertook an independent check on the categorization.

Results

Study 1 revealed that decision-makers saw the Internet and technology as a major change in the sales process. In addition, these respondents indicated that changes are resulting from team selling and team buying.

In Study 2, 1688 critical incidents were obtained. The analysis revealed 16 competencies that defined five different roles of a salesperson. The five roles, along with the number of incidents and their definitions appear in Table 1.

Table 1. *Sales Performance Roles and Competencies*

Role	Number of Incidents	Description
Long-term ally	395	Develop client relationships; keep communications open; become customer advocates.
Business consultant	717	Build credible reputations; build a solid knowledge base; stay current with customers' markets and business objectives; develop the right solution; present and propose effectively; close the sale.
Strategic orchestrator	106	Orchestrate resources to win accounts; manage the sales process.
Consistent cultivator	155	Manage their time and territory; maintain and expand their existing accounts.
Focused optimist	315	Are motivated to succeed; meet their commitments; get and keep the customer's attention

Table 2 presents the results as reported separately by salespeople, managers of these salespeople, and customers of these salespeople.

Table 2. *Sales Competencies by Reporting Perspective*

Roles	*Salespeople*		*Sales Managers*		*Customers*		*Other*		*Total*	
	N	%	N	%	N	%	N	%	N	%
Long-term ally	246	21%	27	19%	90	37%	32	25%	395	23%
Business consultant	534	46%	48	33%	85	35%	50	39%	717	42%
Strategic orchestrator	73	6%	12	8%	8	3%	13	10%	106	6%
Consistent cultivator	120	10%	18	12%	7	3%	10	8%	155	9%
Focused optimist	199	17%	40	28%	54	22%	22	17%	315	19%
Total	1172		145		244		127		1688	99

1. Long-Term Ally

This role is all about the interpersonal aspect of selling and conveying a sense of shared purpose. Whether in a single 30-second phone call or a long-term relationship, successful salespeople know how to establish a human connection with customers and find opportunities to demonstrate the importance of that connection.

They develop client relationships. One salesperson reported, "I was able to form a partnership with (the customer), where both of us were working together to make the product work." Another salesperson took over for someone else saying, "I re-established the account based on trust and increased it from $65,000 to $160,000."

They Keep Communication Open. Effective salespeople find ways to communicate regularly with their customers. Said one customer about a salesperson, "She checked in on a regular basis. I liked knowing that our account was on her mind." About another salesperson, a respondent said: "He would research their questions and then call them back. He made regular calls on his clients even if he did not yet have an answer. He was available for them day or night. When they needed something, they called him directly."

They Become Customer Aadvocates. Salespeople need to do whatever they can to make the customer look good—in the eyes of peers, the boss or other customers. "I'm always thinking, 'How can I help you be successful? How can I help you be a star in your organization?'" says one successful accounting software saleswoman.

On the Other Hand... Salespeople should not think that customers are suckers for backslapping flattery and free tickets. "He was almost a caricature of a salesman—loud, jovial, over-friendly." *(Buyer, transportation services)* "My broker failed to meet with me in person to review the proposal." *(Buyer, health insurance)*

2. Business Consultant

This role calls for salespeople who are focused, accurate and knowledgeable about their products—as well as their customers' needs, markets and business objectives.

They Build Credible Reputations. To be successful business consultants, salespeople need to establish their own reputations. "It's important that my customers perceive me as someone who is fully aware of their issues," said one salesperson. "Basically, if I am going to advise people, they need to believe I know what I'm talking about."

They Build a Solid Knowledge Base. Said a sales manager about one of his salesmen, "He knew his product, and he knew what he was talking about; (his knowledge) convinced the customer to give our organization the opportunity to submit a proposal." One manufacturing sales rep said, "I became knowledgeable about the customer's organization. I got immersed in knowledge about them and what they wanted and needed. I had a good understanding of the company." She went beyond the annual reports to become familiar with the company culture.

They Stay Current with Customers' Markets and Business Objectives. Putting themselves in their customers' shoes by identifying market objectives is another key behavior of successful salespeople. "I'd been trying to sell Internet advertising to a customer for eight years," said an advertising account executive. "Even though he had a web site, he wasn't interested. Last year whenever I saw articles about ad successes in his line of business, I sent them to him. Two months ago, I made another presentation. This time he was ready to listen, and I made a very large sale."

They Develop the Right Solution. A key competency is demonstrating to customers an understanding of their needs. As a buyer of industrial commercial hardware said, "I was thrilled that someone understood our needs and customized an approach that was tailored to my budget and my timetable." Some solutions may exceed what the customer was expecting: "The salesman offered options that even the client didn't see ... and closed the sale."

They Present and Propose Effectively. Busy customers expect salespeople to be able to present well. One salesperson of group health insurance learned the importance of this skill only after an unsuccessful presentation. "This time I gathered more reliable, well-spoken and polished team members." Indeed many salespeople rehearse their presentations. "I role-played with my managers and thought of every conceivable question they could ask me,"

They Close the Sale. A successful salesperson knows when it's time to close the sale. "One reason he made such good use of his time," said a manager about a member of her sales team, "was that he knew when it was time to stop probing and asking for clarification, and wrap things up in terms of closing the sale."

On the Other Hand... Most of the negative examples in our research could have had a happy ending if the salesperson had asked—and listened—more. "I didn't peel back the skin of the onion enough. I didn't probe deeply enough. I accepted what they said they wanted at face value." *(Salesperson, training software)*

3. Strategic Orchestrator

Selling and buying have increasingly become team efforts. This role is all about creating connections between and within the selling and buying organizations to expedite a sale, encourage the exchange of information, and make it easy for the customer to deal with the selling organization.

They Orchestrate Resources to Win Accounts. The effective sales professional knows how to orchestrate key players in an account and in the selling organization. In some cases, these may be the technical support people. "I let their techs talk to our techs, and it keeps them happy," claims one salesperson. In another example, a financial services salesperson worked with his initial contact to identify the decision-makers in his company. Another said, "The client realized he was not able to make decisions and could only take the meeting so far. By having the right people there, we were able to go quickly from an introductory meeting to making the sale."

They Manage the Sales Process. Successful salespeople don't waste time trying to fight the customer's buying process. Instead, they look for ways to synchronize it with their own selling process. "I identified all the players in the client's buying process and made sure everyone in my company knew all the issues and concerns."

On the Other Hand... There were several examples that illustrated process failure: "We are a weather-driven business and have a small window of sales opportunity. The business manager did not plan ahead to have adequate staff when the season hit. We had lots of product to deliver, but could not deliver it fast enough." *(Salesperson, retail manufacturer)* A food processor asked for a proposal. "They put one junior salesperson on it and it took her three weeks to come up with a proposal. It was good, but too late." *(Distribution manager, food processing company)*

4. Consistent Cultivator

This role is all about the salesperson's ability to plan and manage the totality of his or her accounts. Given today's competitive pressures and the trend toward establishing long-term relationships with a few select vendors, the ability to perform this role effectively can make or break a salesperson.

They Manage their Time and Territories. Just as a lawyer or other professional needs to know how to run his or her business, a salesperson needs to assess how he or she is doing relative to the business objectives and his or her own goals. The ability to be personally organized is crucial, especially if a salesperson has many small accounts. "In this industry, you don't have two or three big customers," said a salesperson for a computer equipment firm, commenting about a colleague. "He is exceptionally organized and able to cover all the bases. At any time and any place you can ask him what is happening with such-and-such a customer, and he has got it at his fingertips."

They Maintain and Expand their Existing Accounts. Successful salespeople know where to focus their efforts. One woman who sells home furnishings had an idea to expand her business with a line of private label lamps. "She had an idea and followed all the way through with it," a respondent said. "She took the initiative to work on pricing and quantity with the stores and the manufacturer, taking on the roles of both liaison and problem-solver. The result was she made the biggest sale in the history of our company."

Good salespeople have measurable evidence of their product's success in an account. "With 15 years of relations with the customer, it was very easy to document our standing with end users in the firm," said a salesperson of commercial printing services. "When a new manager threatened to take their business somewhere else, we were able to present testimonials, samples of work and a short pricing structure to show him in quantifiable terms what he was getting. He ended up staying with us."

On the Other Hand... The following examples illustrate the negative behaviors that can undercut this role: "We accepted an invitation to submit a proposal and spent more than $50,000 on it without knowing very much about the client. It was based on the false feeling that we needed the work. Needless to say, we didn't get it." *(Salesperson, construction and engineering firm)* "Nobody in the company was focused on goals. They were performing 'the illusion of work'—and waiting for customers to call them." *(Insurance salesperson)*

5. Focused Optimist

The more competitive, challenging and difficult the selling environment becomes, the more critical it is for salespeople to retain the ability to keep moving forward. This role is all about what top performers do to create a positive atmosphere that makes selling an enjoyable and frequent activity for sellers and buyers alike.

They are Motivated to Succeed. The most successful salespeople seem to love what they're doing. Said one, "Selling gives you pleasure. I couldn't describe it. It not only fills your pocket, but also your spirit and your heart." What's more, this attitude is infectious, as a salesman for security equipment noted about one of his colleagues: "This person exuded confidence. Customers sensed the joy he felt in what he was doing."

They Meet their Commitments. One way of demonstrating a positive attitude is by meeting—and exceeding—commitments. "I have always been able to deliver what I promise," said an enthusiastic salesman, "and (the account) appreciates it. Because of this, I was able to sign them to a $300,000 contract."

They Get and Keep the Customer's Attention. Persistence was one of the most frequently mentioned qualities of top performers. They work creatively to get their foot in the door, as in this example: "The salesperson had a great

idea of sending a coconut with a note painted on the outside. The customer laughed and called to find out who had sent such a crazy thing."

On the other Hand... The following examples illustrate the negative behaviors that can undercut this role: Persistence combined with a lack of preparedness is a recipe for failure, as in this incident: "If the salesperson had spent more time learning about our company and less time badgering people for a meeting, he would have done better." *(Buyer of office products)* "He got 'busy' and buzzed off a client too many times." *(Store manager)*

Conclusions and Implications

In light of today's increased competitive pressures in sales, it is interesting to note that, while Del Gaizo et al research conducted in 1987 and reported in 1996 identified the first three roles, the last two roles—consistent cultivator and focused optimist— emerged only in the research studies reported here. The three roles of long-term ally, business consultant, and strategic orchestrator focusing primarily on adding value and partnering with customers. The two newer roles emphasize individual persistence and managerial skill.

The study also revealed the importance of organizational support for the roles of individual salespeople:

- Focus. "I have so much going on, I can easily get distracted. I use the compensation plan to focus on what I do. So if our comp plan rewards new business, that's what I'll go out and get."
- Information. "One way the organization distracts me is by not giving me the information I need. Last week, nobody could give me some pricing I desperately needed on a product configuration, so I made it up. This is time-consuming and very stressful."
- Useful tools. "I use a time-management software program that lets me track customers, keep to-do lists, everything. I battled the company for years to let me use it. Now it's the company standard."

The present study represents a first step in defining sales performance competencies needed today. One limitation of the study is its focus on the U.S. Whether these competencies appear or are as critical in other parts of the world needs to be examined. Future research would extend this data collection effort to other countries and other continents. The results of the present work can be used to design and validate instruments to measure the competencies. Such research would, in addition, provide some further validation of the roles and the competencies identified in the present study, as recommended by Schippman, et al (2000). Evaluation of an HRD intervention to improve sales performance provides another line for future research. Using validated instruments or some other data collection approaches, the evaluation can examine the process for the intervention as well as the impact of the intervention.

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Competencies: The Triumph of a Fuzzy Concept

Jo Boon
Marcel van der Klink
Open University of the Netherlands

This paper discusses the backgrounds of he concept of competence. Following a survey on specific job characteristics from the point of view of demand for competencies, a review of literature and interviews were executed to gain more in depth knowledge about the concept of competencies. Findings from this literature analysis and from the interviews with experts on this topic are explored.

Keywords: Competence, Competency-based Management, Competency-based Education

The main roots of the concept go back to the seventies of the former century. Especially in the USA, experiments where carried out in educational settings making use of competency based education approach (Eraut, 1994). The experiments in the domain of teacher training gained a lot of attention. Experiments, however, in the other professional domains did not receive much attention in literature. (Grant, 1979).

The most important characteristics of the competency approach in teacher training at that time were the idea that it was possible and useful to copy as precisely as possible the behaviour of excellent professionals. It goes without saying that this idea implied a strong behaviourist background of it.

Accordingly in the same period in labour organisations the same interest can be found in the application of the concept of competence. Recruitment and selection procedures were modelled along the same idea about the identification and reproduction of behaviour of excellent managers. For example, McClelland (1973) developed a list of competencies and he assumed that the assessment of competencies of potential managers was a better predictor of their future performance than the widely applied psychological tests for measuring intelligence.

In the eighties the competency approach loosed its importance in education circles, the approach was merely criticised for focussing too much on isolated abilities, instead of on the whole functioning of professionals. Also the assessment of competencies turned out to be a major problem (Eraut, 1994). By this time in labour organisations too the approach was heavily criticised for delivering too vague insights into competencies, for not giving enough attention to situation specific elements, the lack of attention for soft skills, and its questionable predictive value. Nevertheless the competency-approach remained and other significant contributions were published, like the work of Boyatzis (1982) and Spencer (1983). Further, during the eighties the application of the competency approach expanded from selection procedures to the use for reward systems and HRD.

In the Netherlands the notion of competencies did not get the same attention as in the USA. At the start of the former decade however, it became popular in the Netherlands through the work on core competencies of Prahalad & Hamel (1990). At this moment competence is one of the most discussed issues in the Dutch field of HRD and also it is an emerging concept in professional and higher education.

The research discussed in this paper is part of a more comprehensive study into the usability and application of the concept of competence. At the beginning of the project a survey was held among former students of an economic faculty, analysing the use of knowledge, skills and attitudes in their jobs and the relation of these elements to the faculty's curriculum (Van der Klink, Boon & Bos, 2000). The survey raised questions concerning the possible usefulness of the concept of competencies for the translation of labour market demands into curricula. To address these questions a case study was carried out. This paper discusses the design and outcomes of this case study. It focuses on the why and what of competence. Why did it become a concept of paramount importance? And what is in fact a competence? How can we define this concept?

Theoretical Backgrounds

As mentioned in the introduction of this paper a remarkable confusion exists on the subject of the definition of what competencies are. In general the literature offers two perspectives:

- A geographic perspective
- A psychological perspective

First differences can be observed between nations, along the lines of different national educational policies and – often historically originated- different types of relations between education and the labour market. Fletcher (1992) concentrates on the difference between the American and British approach (see Table 1).

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Table 1. *Definitions of competencies (Fletcher, 1992 in: Thompson & Carter, 1995)*

	British approach	*American approach*
purpose	Assessing and certification of employees	Development of competencies
procedure	Formulate standards of sectorial accepted performance standards of functions and professions	Description of excellent behaviour to define competencies
scope	Competencies are specific for functions and professions	Competencies are specific for organisations

In the British approach competencies are seen as standards for functions and professions, whereas in the USA the behaviour of excellent performers is the source for the development of lists with relevant competencies. This differs slightly from what could be labelled as the German perspective, which explicitly distinguished qualification and competence. Qualification refers to the recognition in diplomas and professional degrees and this visualise a certain set of competencies. The notion of competence is restricted to a person's ability to perform certain tasks (Onstenk, 1997). The formulation of qualifications and the determination of its contents is a process wherein the government plays a major role, while the judgement of an employee's competencies are made by individual employers (Oliviera-Reis, 1994).

Another source for conceptual disagreement on the definition of competencies originates from theory on how people learn. Two different approaches can be observed (Simons, 1999); on the one hand a cognitive and on the other hand a constructivist view on learning. The main differences between the two approaches concern the description of competencies, the ideas on interaction and the measurement of competencies. In contrast with the cognitive approach the social-constructivist approach values highly subjectivity and motivational aspects and it questions the notion of transfer to other (job) contexts. The cognitive approach relies more heavily on the application of top-down approaches when the investigation and determination of competencies is at stake. There is a tendency in the cognitive approach, according to Simons, to link competencies with performance, while in the constructivist view the individual employee's perspective and preferences gains more attention in the composition of competencies.

The contemporary emerging attention for competencies in labour organisations is often attributed to Prahalad and Hamal (1990), who analysed the position of enterprises on the labour market from the idea of core competencies. These are unique clusters of factors allowing a firm to take a strong competitive position. Various developments within and outside organisations contribute in a direct or indirect way to the attention for competencies. Examples of those developments are, among others, the shift towards more customer-oriented production, the emphasis on quality control, and the range and the speed of the upcoming of information technology in all facets of the production process. To respond to these developments organisations were forced to increase the flexibility of the workforce (in terms of time, e.g. flexible contracts, and in terms of tasks and responsibilities). Although the mobility patterns that are prompted by this flexibility strategy cannot for the Dutch context be described in terms of statistical significant developments yet (Fruytier & Klomps, 1999) it is without any doubt an important development for the generations entering the labour market recently. It is clear that the ability to cope with these levels of flexibility requires specific competencies of the workforce, for example competencies to manage your own (horizontal) career in the transitional labour market (Boon & Van der Klink, 2000).

Also new models of management emerged, as an alternative for the traditional Tayloristic models that contained detailed descriptions of required job demands and job tasks. These new models have in common their focus on output and performance. For example Galilee *et al (1998)* argued that in modern organisations a large scope of knowledge and abilities of workers could be seen. This hampers management to describe precisely the different tasks that have to be performed. This evidently leads to a focus on output and performance. Definition of the different tasks of the job is the longer the more part of the job itself. The essence of the competency approach is the fact that employees have to be assessed on performance and output. To realise this output without being controlled on the process, employers have to ensure the availability of a broad scale of productive characteristics.

The government's educational policy is trying to stay in touch with these developments by encouraging schools to give attention to developments in professions while designing curricula. The educational sector is the longer the more expected to become a partner in the creation of knowledge and in the deliverance of professionals able to work in innovative work environments (Ministry of education, arts and science1996, 1998). Notions such as 'regional knowledge centre' became fashionable to emphasise the new role of vocational education and professional education in the development and deliverance of competencies needed to perform adequately in jobs.

Methodology

As mentioned in the introduction of this paper, a former project was the main reason for conducting a study into the concept of competence. It was decided to opt for a small-scale study focussing on analysing literature and interviews with key persons.

Research Questions. The research questions that were addressed in this study were:
What is the explanation for the contemporary attention for the concept of competencies in enterprises and education?
What definitions are in use? How useful is the concept for a better translation of labour market demand into curricula.
How is this concept put into practice in enterprises and in education?
Will the current attention for this concept be of a temporary nature?
As these research questions reflect, the analysis was not limited to the domain of labour organisations, but also the usefulness of this concept in education. Education in this research was defined as vocational and higher education (which includes in the Dutch binary system academic and professional education as well). With exception of academic education, these types of education are highly related to and even - to a certain extend - determined by the labour market developments.

Research Method. Due to the kind of research questions, a qualitative research design was considered to be the most adequate. To answer the above-mentioned research questions a choice was made to hold face-to-face interviews with experts . An instrument was developed, allowing semi-structured interviews, focussing on background, definition, and application of the concept and persistence in time. Each expert was invited to express his opinions on these specific four matters. According to the respondents' specific expertise some topics where discussed more thoroughly.

Respondents. Respondents were selected on the significance and their topicality of their contribution to the Dutch debate on competencies. This selection was performed on the basis of publications in professional journals (in the domain of HRD and education) and/or prominences as invited speaker to congresses. Ten experts were selected, working in the educational sector, in the consultancy sector and in research. These experts can be regarded as the key persons in the Dutch competence debate. Table 2 provides an overview of the experts' backgrounds.

Table 2. *The Selected Respondents*

Expert	Background
Expert 1	Professor in HRD, member Dutch Educational council, HRM-manager in banking organisation
Expert 2	Professor in HRD, senior researcher in research centre for vocational education
Expert 3	Senior consultant in the field of higher and vocational education
Expert 4	Professor in HRD, senior consultant in HRD consultancy firm
Expert 5	Senior consultant in educational technology centre in the field of higher education
Expert 6	Senior consultant in HRM consultancy firm
Expert 7	Senior researcher and consultant in centre for vocational and higher education
Expert 8	Senior consultant in HRD consultancy firm
Expert 9	Professor in HRD
Expert 10	Professor in IT Education and manager in Telecom firm

Data Collection. Duration of the face-to-face interviews varied between 60 to 90 minutes. From every interview a detailed transcription was made and this was mailed to the respondent with the request to react when the respondent's opinions were not reflected adequately in the interview report.

Results

In this section the data are presented at an integrated and aggregated level. The following topics are discussed successively: definitions in use, the backgrounds of competencies as an emerging concept, the application of the concept in education and labour organisations respectively, the persistence of the concept of competencies.

Definitions. The respondents agreed upon the idea that a prominent feature of the concept is the focus on clustering skills, knowledge and attitudes. But respondents' amplifications revealed substantially different meanings:

- Competence is a conceptual tool to describe the interdependency between professional skills and meta-cognitive skills. This facilitates the transfer to other contexts;

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- Competence refers to innate abilities, emotions, attitudes, skills and knowledge, and the motivation and ability to apply these in certain contexts. Only to a certain exend competencies are trainable trough formal and informal learning experiences;
- Competence as an individual, personal ability to apply the right clusters of skills, knowledge and attitudes to perform adequately in various settings.
- Competence as conceptual framework, facilitating communication and interactions between education and labour market by providing a tool to discuss and negotiate the content of professions and the curricula o f educational providers in an integrated way.
- Competence as an organisational tool for competency-based management to enhance the communication between various stakeholders within an enterprise about what is regarded as valuable and measurable behaviour from an organisational perspective

In addition, some respondents pleaded for an enlargement of the definition by stressing the importance of 'civilian competencies', allowing participation as citizen in society.
Obviously respondents expressed contrasting opinions regarding the trainability of competencies. Opinions varied from completely trainable to trainable to a certain extend.

Explanations for the Ppopularity of Cconcept at This Specific Moment. Several respondents expressed a general sense of uncertainty as the main reason for the popularity of competence. Employers and HRM staff feel uncertain about how to select new employees, given the need for flexibility of the workforce. The certitude of changing job requirements makes it hard to define clearly the required attributes in terms of knowledge, skills, attitudes and motivation. Measurement of very different characteristics of employees is often seen as a solution, allowing to keep record of a large amount of characteristics that are registered, need to be trained, etc.. On the side of educational institutions a same sense of uncertainty can be seen. Institutions feel the need to train for good professional performance, but feel unsure about the authentic descriptions of this performance.
The main bases for this sense of uncertainty are he fast developments in (the sector of) information technology. Not surprisingly the issue of competencies is high on the HRM -agenda of organisations in this specific sector.
The various arguments respondents gave to substantiate their opinion can be presented in two clusters:
1) The attention for competencies in enterprises
Focus on output: Competence as a concept is in line with the contemporary focus on individual performance, the attention for the measurement of observable output, and the emphasis on skills.

Multidimensional concept allowing to integrate different aspects of functioning +: The competence concept has the advantage, compared to other popular concepts such as the Learning Organisation, that it is more tangible and it is easier to operationalise, both on the organisational level and on the individual level. Therefore it better fits into the (re)design of various processes within organisations, and will be thus not exclusively restricted to HRD in organisations. It is a concept that connects various groups in organisations, like HRD, HRM and the management that already was used to think in terms of core competencies.
2) The attention for competencies in vocational and professional education
Competency-based education holds the promises to improve the performance-based nature of curricula, which might be a valuable asset to attract students, new groups of students, and will reduce the gap distance between education and labour market.

The popularity is further increased by offering new perspectives on a better design for the alignment between education and labour market. The current procedures for determination of curricula content, through the composition of job and profession profiles, lack the flexibility to cope adequately with the fast changing labour market demands. Moreover, the concept of profession itself is eroding and does not function as a settled framework in the discussion on the content of curricula. There is an urgent need to develop a new framework that responds better to the contemporary situation allowing stepping away from the idea that professional performance can be described in separate skills and abilities.

Applications in Enterprises. Respondents agreed on the fact that although competency management is a relevant topic in HRM divisions of many organisations, the implementation on the other hand is rather limited in quantitative and in qualitative terms. Respondents opinions can be summarised as follows:

The high costs of the development of an enterprise policy based on competencies are seen as the most important obstacle. At the same time choosing the right moment to implement a competency approach is a major impediment. When the enterprise is in good shape, there is no obvious need for the development of a competency approach. At the moment problems arise in an organisation, the investment is often too expensive in terms of resources. Some respondents suggested that the concept of competence would be most often applied in sectors that are facing turbulent developments, like ICT companies. It is least applied in organisations that are not depending on market developments, such as non -profit sectors.

Respondents referred to the special position taken by consultancy firms in the implementation of competency-based management in enterprises. Although different kinds of competency management can be

distinguished, mostly the same methodology is adapted for its development: interviews, panel discussion and the organisation of feedback are the core instruments. Very often consultants confront companies with fixed and rather global lists of competencies, not allowing a firm-specific description of the competency-structure. At the same time only incidentally an (summative) evaluation of the predictive quality of the competence approaches takes place, which makes it difficult to assess its actual contribution to the improvement of HRM-policies.

Applications in Education. There are two arguments respondents mentioned for the application of the concept of competence in higher and vocational education:

The concept allows the use of the same language. It is clear that the concept of competencies originates from the need of labour organisations to define their demand for human capital. The adoption of the concept by edicational institutions points to their need to optimise the preparation for professional performance in such a way that it allows preparation of students for dealing with changing demand. Several respondents emphasised the point that the concept functions as a communication tool between education and labour market. Traditional tools, such as professional profiles have lost their function because they are static, fragmented and outdated Employers complain that newcomers on the labour market lack skills for today's demands, such as communication skills, and the capacity to solve problems.

A second motive for the adoption of the concept of competence stems from the observation that traditional curricula put to much emphasis on theoretical knowledge . The attempts to integrate the workplace into the curriculum lead to a greater focus on core professional problems as the cornerstone of the curriculum. This most often implies the use of problem-based or project-based types of learning, or even the design of dual training schemes where the training is partly located in the workplace itself.

So far, however, actual applications of competency based education in vocational and higher educational are scarce. Respondents mentioned some examples underlining the limited application in educational practices. Interviewees point at various problems that might explain the limited attention in education. A first problem respondents mentioned concerned the risk of giving too much attention to competencies in curricula might lead to an underestimation of reflective and/or academic competencies in the curricula. A second problem is certainly the role of assessment. The shift toward another pedagogical concept will only be successful if the assessment of students will alter too. If students in those reformed curricula would still be assessed on their knowledge only instead of their competences, then this would mean the fiasco of the educational reform . It is clear that assessment is a major problem in this respect, demanding the design of valid types of assessment that covers all aspects of competences in an integrated manner.

Competencies as Hype. The actual attention for the concept is yet very new. Most respondents perceived a remaining focus on output and performance in the future. The developments that can be described as the background of the popularity of the concept of competencies – the increasing flexibility and uncertainty - will become even more manifest in the near future. Given these developments it is very unlikely that the competency-concept will prove to be a passing hype.

In addition, respondents viewed new trends. They mentioned for example the shift from the focus on individuals to a focus on groups or larger entities, in organisations as well as in education (e.g. the current focus on collaborative and cooperative forms of working and learning). Also they viewed that work and learning will be integrated more closely. Examples of this integration are the emergence of (virtual) communities of practice. These are multidisciplinary or multiprofessional teams working and learning together. Another trend that is expected to become influential is knowledge management. This would mean a stronger accent on process and product related knowledge, away from traditional disciplinary knowledge. The focus here is more on the organisational level than on the individual level. As far as respondents mentioned new trends, these trends will not reduce the attention for competencies in organisations and education.

Conclusions and Discussion

The exploration of the concept of competence in this paper shows that the concept in fact serves as a container, with a very flexible content. This major vagueness proves to be rather attractive but at the same time it makes it difficult to use the concept as a cornerstone for designing HRD and educational practices. The confusion is partly the consequence of the application in different countries, in different settings (education and organisations) and for different purposes. The results underpin that it is necessary to define carefully the concept of competence.

In our research we encounter different opinions regarding the definition of competencies, such as:

- Competence as individual characteristic;
- Competence as characteristic of organisations;
- Competence as a tool to structure communication between stakeholders (within organisations and between education and labour market).

These different definitions indicate that competence is an ill-defined term. However, the strength of the competency concept seems to be that it is such an ill-defined term, serving as a link between education and labour organisations, between internal and external organisational experts, between HRM-divisions and management.

The attractiveness of the concept is that it offers the right balance between the certainties that knowledge, skills, motivation and attitudes matter, and the uncertainty about the mixture of these elements, about the flexibility etc. The concept recognises the importance of the ' ecological validity' of individual characteristics, in the sense that they only become significant when they are used in the concrete professional context. Another element of the attractiveness of the concept is that it focuses on output and at the same time offers hints on the way to organise the learning process to reach this output.

Most often respondents explained the growing importance of competencies from uncertainty: the fact that contents and positioning of tasks in labour organisations change fast and consecutively problems arise in defining clearly the attributes in terms of knowledge, attitudes and motivation needed to fulfil these tasks.
The actual importance of the competence concept is due to developments on the labour market bringing along a certain degree of uncertainty concerning the precise definition of professional requirements. At the same time the success of the concept is due to that fact that in the educational sector there is much attention for didactical models ensuring a good preparation of students for the requirements needed on the labour market. The concept of competence is functioning as a vague but useful term, bridging the gap between education and professional requirements.

Paradoxically from the interviews we can conclude that in practice enterprises meet large problems implementing competency-based management. Qualitatively and qualitatively poor dissemination of competency-based policies is mentioned. Partly this is due to the lack of good shaped and good focussed instruments, partly costs are responsible for this situation. In educational settings the same problems can be mentioned. In fact a paradoxical situation can be seen here. Although competency management is used to enhance the optimal functioning of employees, in practice it seems to be very hard to find the right level of accurateness in the description of competencies; either lists with very broadly defined competencies or very detailed descriptions are used.

The research presented here contributes to the understanding of the richness of the concept of competence. At the same time however, this study shows the need for clear definition. A comprehensive definition may be one step too far, and therefore it may be necessary to pay attention to the exact definition of competence, that fits with the specific purpose for the use of this concept in a particular setting. As this study showed, the application of the concept of competence on a large scale cannot be seen in practice. For the following years it is therefore recommended to study carefully the advantages and disadvantages of the concept of competence in various contexts. Especially the contribution of this concept to dealing with uncertainties should be a topic in research.

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Savings-and Credit Interventions: Are They Empowering the Poor?

Ranjini Swamy
Ramesh C. M.
Goa Institute of Management

Savings-and-credit interventions are aimed at providing poor people (especially women) with access to credit. Poor women form groups to save money and avail credit; some participate in the administration of these groups. Could participation in such interventions empower the women? Could empowerment differ for women with and without administrative responsibility? Women members of a savings-and-credit intervention were interviewed. Findings indicate differences in the level of empowerment among respondents with and without administrative responsibility.

Keywords: Empowerment, Women, Developing Countries

Savings and credit interventions are aimed at providing poor people with access to credit. The poor in many countries are not considered creditworthy. Traditional banks do not give them loans. Therefore, many non-governmental organizations (NG0s) are helping them obtain credit for themselves. These NG0s act as intermediaries between funding agencies and the poor. They help the poor (in many cases, poor women) to organize themselves into small groups, pool their savings, access commercial finance and lend these funds to members at interest rates that are lower than those prevailing elsewhere (Robinson, 2001). These loans are used to start tiny businesses, to fund working capital for these businesses, and for personal consumption (esp. during times of crises or for special events such as weddings).

In these interventions, the poor are encouraged to participate in managing the activities of these savings-and-credit groups. In the process, they get an opportunity to do things they have never done before. This is especially true for women. Historically, many poor women in Asia, for instance, have little freedom to talk to strangers and to move out of their village alone. In Bangladesh, the *purdah* and other cultural constraints hamper women's mobility (Zaman, 1997). Women have limited access to resources and outlets outside their homes (Vijayan & Sandhya, 2001). They have less control in determining whether to work or not, and in choosing their work environment. They have little discretion in family decisions such as what to spend on, how much to spend and so on (Viswanathan, 2001). In other words, they are not empowered.

Participating in the groups' activities has the potential to empower women (MacIsaac, 1997). First, this enables them to become an important source of income to the family. Second, the experience of administering the groups - of persuading members to pay their installments regularly, ensuring that all members have access to credit, of recovering loans - can provide them with opportunities to develop knowledge and skills needed to deal with the external world. Together, these can create a new confidence in women, which can in turn help them acquire the freedom to choose how to live and exercise reasonable control over the decisions that directly or indirectly influence their lives.

This could help society in many ways. Women could learn to address many social evils such as dowry and exploitative labor practices; they could demand accountability of institutions set up to serve the poor. In addition, the empowered women could provide new role models for the girl child and open up avenues for them that did not exist in their minds before. Newer and more secure occupations may be explored in the future, thereby creating a more stable source of income for women. This in turn could ensure the sustainability of the credit institutions in the long term.

The Problem

Some of the NG0s who help the poor access credit, obtain their funds from international organizations such as the UN. These funding agencies have tended to evaluate the effectiveness of the NGO's interventions using financial measures such the quantum of the savings; the earnings from these savings; the extent to which loans given are repaid; whether the beneficiaries have paid the costs involved in administering the activities of the group and so on (Report of the Secretary General, n.d./2002). Besides this, some surveys explored the dynamics within the savings-

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and-credit groups: whether they met regularly, the attendance at these meetings, whether their accounts were regularly audited, and so on (Guidelines for the evaluation of self-help groups, n.d./2002).

However, effectiveness needs also to be examined in terms of the outcomes for the beneficiaries. Some studies (Fernandez, 1995) explored whether members of these groups had begun to voice gender concerns. Greater voice within and outside their families could be seen as an indicator of increased empowerment. Given the condition of women, especially in rural households, the empowerment of women could be considered a desirable outcome. Of the 1.3 billion poor, women constitute 70 % and their representation is only increasing. Women perform a great proportion of the world's work; yet, they do not receive proportionate benefits (Supporting women's livelihoods, n.d./2002).

Women's Empowerment Through Savings-and-Credit Interventions

Schuler and Hashemi (1996) define women's empowerment in terms of their sense of self, mobility, economic security, status and decision-making power in the households, the ability to interact effectively in the public sphere and participate in non-family groups.

Research suggests that the impact of participation on empowerment is not uniform. Amin et al (1994) showed that membership in a credit institution positively affected women's role in decision-making and their control over resources. Respondents also said they felt more secure in their marriages because their husbands were less likely to desert them now. Naved (1994) found that women who participated in credit interventions reported improved status within their households. They were more active in making household decisions and exercised more control over household income derived from their earnings. They also expressed confidence in dealing with social problems jointly.

However, others did not find such an impact on women's empowerment. For example, Goetz et al (1996) studied 253 female borrowers who were members of one of four rural credit institutions in Bangladesh. Borrowers were classified into five categories, depending on the extent of control they had over loan utilization. They found that about 63% of the respondents had partial, very limited or no involvement in these matters.

The differences could at least partially be explained by the nature of the sample observed. It is possible that empowerment is more among women beneficiaries who have taken up administrative responsibility in their groups. Those who do not take up this responsibility may not feel empowered. This is what we sought to explore in our study.

This study relies on in-depth interviews of seven women who have participated in the savings-and-credit groups initiated by an NGO called PRADAN in the Madurai district of Tamil Nadu, India.

Background of PRADAN's Savings-and-Credit Intervention

PRADAN aims at helping the poor obtain sustainable livelihoods through income generating projects. The experience of initiating these projects brought home to them the importance of credit for the poor. Since banks were unwilling to extend credit to the poor, PRADAN decided to do it themselves in the year 1990.

The larger purpose was to demonstrate that the poor were creditworthy. They identified poor families in a village. Then they convinced the women of these families to form groups and save money regularly. They explained how this money could be circulated as loans to meet contingent expenses. Gradually, women across several villages agreed to form such groups. Each group was to decide how much to save every month and ensure that the savings are made regularly. The money so saved was then loaned to one or a few members depending upon the need.

The women struggled to enforce discipline among members in saving and paying the monthly interest due on loans regularly. They sought ideas from groups in other villages to grapple with the management of the group and its resources. Meanwhile, the demand for credit increased. The money generated from savings of one group was often inadequate to meet the requirements of all its members. So groups from 7-8 neighboring villages came together to form a *Cluster*. The cluster members created a cluster-committee, comprising representatives of all the groups in those villages. The committee had a president, a secretary and a treasurer, who were all elected from among the groups.

The committee obtained loans from the bank against the cumulative savings of the members of the cluster. They opened accounts in the bank and learned how to audit their accounts. The loans were disbursed to the savings-and-

credit groups depending on their needs. When groups found it difficult to recover a loan, they referred the matter to the cluster committee. New savings schemes were communicated to the groups and administered by the committee. Also, new groups were formed in the villages and were given advice about how to sustain themselves.

Later, the clusters were in turn grouped under a *Federation*. The federation comprised of women who represented the various clusters. It helped develop new savings and credit schemes, in consultation with PRADAN staff. It helped clusters access larger loans from banks as well as other sources and helped coordinate among the clusters.

It's been a decade since the groups have been initiated. PRADAN reports suggest that the groups have been able to mobilize a considerable savings. The groups have been able to raise money from banks and have been successful in recovering more than 90% of the loans and interest due to them. Financially, therefore, the intervention has been a success. It has demonstrated the creditworthiness of the poor.

Research Questions

However, these results do not capture the nature and extent of transformations occurring in the lives of the women, following this intervention. Would they be more empowered? For instance, would there be changes in the roles they play at home? Would their husbands' role change? Would they be more independent in their decision-making? Do they have an independent identity now? Do women take on a more proactive role in community affairs after the intervention? Are they for example, collectively or individually addressing social traditions like the caste system, 'untouchability' and poor status of the girl child? Would there be differences in the experiences of women who actively took part in administering the groups and those who did not? These were the research questions I went with.

Method

Given the nature of our interest, we decided to interview women who are members of the savings-and-credit groups, to understand how they lived before the intervention, why they joined the savings-and-credit groups, whether the intervention has changed their lives and in what way. We felt semi-structured interviews would give us an understanding of the changes in their lives and what the unforeseen cost and benefits have been since the intervention. We were not even sure that changes had occurred. So we decided to do an exploratory study.

One of us conducted the interviews over three trips between 1995 and 1997. On the first trip, it was difficult for the women to find time for interviews. Most of them worked on the fields as agricultural labor during the agricultural season. When there was no work on the field, they went to the forests and picked up fuel that was later sold. If at all they had time, it was in the late afternoon.

Accordingly, some women were interviewed in the afternoons, either at their homes or in the fields or in the PRADAN office. During a visit to the village, a group of women would discuss general issues about their lives. Some among them who seemed interested in sharing their experiences were interviewed at length. PRADAN had provided us with a list of people who could be interviewed. They largely included women with administrative positions in the groups. The final sample, however, included women who were not on the list and who did not have any administrative responsibility.

Interviews were conducted in the local language through an interpreter. The interviews were recorded on audiotapes and later translated and transcribed. Many women had not talked about their life to anyone and consequently there was a lot of to-ing and fro-ing between the present and past, which was confusing. Therefore, every interview was conducted over a few days. Clarifications were sought over the period.

Many repetitions occurred. This was taken as an indicator of the reliability of the data. Some incidents were common to two members who belonged to the same cluster. These became opportunities to validate the facts pertaining to the incident. Some clarifications were sought and obtained from some project officers of PRADAN who had worked with the women I was interviewing. In this way, I tried to establish the authenticity of data.

The weakness of this method is the reliance placed on the memory of the respondents. Second, the sample is small and hence poses constraints in generalizing the findings to the population. Third, there could be transmission losses in the data since we did not understand the language and had to rely on an interpreter.

Sample Profile

The women interviewed had been members of the savings-and-credit groups for at least three years. Six of the seven respondents belonged to the lower castes. One belonged to the higher caste and was a member of the local governing body of her village, called the *panchayat*. Three were illiterate, while two had studied upto middle school. One had completed a diploma in pharmacy.

Four of the respondents held administrative positions at varying levels of responsibility at the time of interview. Three of these four respondents were illiterate while one had studied until senior school. They were older and had grown up children, either married or of marriageable age.

Findings of the Study

1. Dependence on the husband. Do women have a say in decision-making within their families or do they depend on their husbands to make decisions for them? The dependence of respondents varied depending on the nature of decisions.

Five women described the process of making the decision to join the savings-and-credit groups. Four of them required the permission of their husbands to join the savings-and-credit groups. One of them, who happened to be the leader of the Federation, said she had made this decision independently.

The decision to stay on in administrative positions was made after joining the groups. The four respondents made the decision to continue in these positions, despite opposition from their husbands. When one respondent's husband objected, she reminded him of the timely loans they had received from the group. She convinced him that her involvement in the administration was necessary for the group's survival. She even got the staff of the NGO to persuade him to let her continue. Two respondents dealt with the objections by quietly taking on additional work at home and not reacting to the abuses of their husbands. The fourth respondent however, when faced with opposition from her husband, requested other members to take over her responsibilities. When none came forward, she compromised by sharing certain responsibilities with other members of her group. For instance, other members of her savings-and-credit group attended meetings held outside her village.

Among other personal decisions, three respondents discussed the decision on family size and sterilization. One respondent, who had administrative responsibility in the group, said she made the decision to undergo sterilization and informed other members of her family before implementing it.

The other two respondents, who did not have administrative responsibility in their groups, made this decision differently. One said she was forced to undergo sterilization. She had desired a fourth child - a girl - but given her poverty and poor health, her brother was against this. So, after obtaining the consent of her husband, he forced her to undergo sterilization. The other said the decision to undergo sterilization was made jointly with her parents, her husband and her in-laws.

On decisions about what to purchase for the family, the respondents with administrative responsibility claimed greater freedom. They said that their husbands did not interfere with their decisions. Two of them claimed that they even advised their brothers and sisters about what to purchase.

Two of the three members without administrative responsibility said their husbands played an important role in purchases. One said that was because she was a spendthrift while her husband was careful with money. The other said she had no exposure to going outside home and shopping. Her husband did all the purchases.

Economic dependence on the husband, however, continued, in view of the size of repayments to the savings-and-credit group and the requirement of saving a fixed amount every month. In case of respondents with administrative responsibility, the dependence was mutual. One of them even claimed that she now gave money to her husband for his daily requirements. This was because he was sick and could not work as before.

Two out of the three respondents without administrative responsibility seemed to be very dependent on their husbands for economic support. This may be because the two were in poor health and could not earn wages. The third respondent, who was educated, had her own sources of income. In her case, the dependence was mutual.

There were other reasons for economic dependence. One respondent explained that though she also worked on the fields, her earnings were not sufficient to meet obligations. First, she worked in larger groups so that she could finish work fast and then attend to household chores. The wages earned by her group had to be shared among more members. So each earned less. Second, as a woman, she could do only certain jobs on the field, for which the payment was less.

2. New Identities, a New Sense of Self: All four respondents with administrative responsibility reported identifying with the interests of the groups and were willing to set aside personal matters to address the problems of

group members. They said that helping the poor women of the villages gave them satisfaction. They expressed happiness that other women in the groups trusted them and felt obliged to live up to the trust reposed in them. One of them said she put the group's interest before that of her family because the women had faith in her. She said she saw herself now as a social worker.

At least three of the four respondents with administrative responsibility reported increased confidence in talking to strangers, going to new venues and presenting their opinions to people from banks and other institutions/ government agencies. They learnt to visit far-away villages, sell the idea of forming savings-and-credit groups to women from those villages. They learnt to speak in public. Two of them said they had learned to confront people employed by the savings-and-credit groups, who were embezzling funds.

Two respondents who did not have administrative responsibility also learnt to visit other places and mingle with others. Both of them said they learnt these when they had briefly held administrative positions in their groups.

What Was The Consequence for Traditional Roles Performed by Men and Women? Did this change, following the emergence of new identities? The women who had administrative responsibilities said they had to make time for visiting other groups, attending meetings, following up on loans and savings and so on, *in addition to performing household tasks.* Often meetings took them out of their village and they returned late. In such situations, the men did not make alternate arrangements. They just waited for the women to return and then cook food. Often food was served late on such occasions. One respondent said she was beaten for reaching home late and keeping her husband waiting. Two others said they were often abused for coming late.

Respondents without administrative responsibility said that responsibilities in the family prevented them from taking up responsibilities outside. Looking after the young children, cooking for the family, looking after the in-laws, fetching water and so on were still the women's primary responsibility. Any activity that took them away from these was therefore avoided. One respondent said she often did not attend meetings because the children needed looking after. Since her children were young, group members did not insist on her attendance. Even if she does take up administrative responsibilities in the future, she would not be able to visit distant villages because of household responsibilities. Another said that she would never spend the night at any place outside her home or her mother's home. She has avoided administrative responsibility for this reason. The third respondent said that her children's health and education were more important than participation in the group's activities and her self-development. She wanted to learn tailoring but family took precedence over this.

One respondent described in considerable detail, the expectations from a girl or woman in her society. "Even if a girl is from a royal family, on entering her in-law's house, she has to adapt to their situation". Once she entered her in-law's house, she had to do the household work. "If I do not do these things (*household work in the in-law's family*) I felt others would curse me, say I am arrogant," she said. Her decision to start working immediately after marriage was to ensure that the family did not have to borrow money from others. Her views about her daughters' future remain traditional. "They will become part of another family. So they have to learn to involve themselves in household work." Therefore, even when they were 7 years old, she got them to light the fire for cooking, sweep the house and so on.

3. Addressing Societal Problems: Did participation in the savings-and-credit groups encourage women to address other social problems - like inter-caste relations, dowry, discrimination against the girl child, and so on - in their villages? In the villages of India, people are divided into several castes, some of whom are considered high castes and others as low castes or untouchables. Relations between castes are often sensitive, particularly between the "untouchable" people and the higher castes. How did participation in the savings-and-credit groups influence the relations between castes?

A respondent, who heads the Federation, gave us one example of how activities initiated by the savings-and-credit groups could affect inter-caste relations. For the first time, members of these groups took up the cultivation of fish in the village fish-tank. Traditionally, the village body contracted out this tank to a party - usually higher caste landlords- for a specified period. In return for a commission to the village body, the contractor could cultivate fish and later sell them for a profit.

However, the fish-tank was later taken over by the government. At the instance of Pradan functionaries, the members of three savings-and-credit groups (many of them were lower-caste women) collectively bid for the fish tank. The government officer in charge of contracting out the tank, decided to give the contract to the women. The upper caste men reacted adversely to the decision, and applied pressure on the local bodies to undo the decision. However, the women succeeded in retaining the contract. Despite ridicule and skepticism from the local populace and

threats from the higher castes, they succeeded in running it profitably. They even bid for and obtained fish-tanks in other villages after this experience.

But this was not without its costs. The respondent, who was leading the women in the bid for the fish-tank, lost her daughter. The upper castes accused her of having murdered her child and reported the same to the police. She felt this was done to avenge the loss of the contract and for daring to defy the social hierarchy. She was able to get the case dismissed. However, getting work on the fields of the upper-caste landlords was not easy for a long time. She had to seek work outside her village.

Another respondent cited an instance where women are beginning to cooperate across caste lines in the groups. In a cluster committee meeting, the women of a savings-and-credit group approached the cluster for help in redeeming a loan. It was suggested that members of another group (of lower caste women) should help them. Some members raised objections to lower-caste members helping higher caste members in redeeming loans. The respondent then gave them an instance where this had happened and the loan had been redeemed.

What Has Been the Outcome for Inter-caste Relations Outside These Groups? One respondent observed that members of higher castes now traveled together with the "untouchable" castes, even paid for each others' tickets; they invited each other to their houses on festive occasions, exchanged paddy / rice with them. However, there was no attempt to marry into each other's caste or eat in each other's houses. Another respondent, said that the lower castes still had no say in the village-level decision-making body. They were not allowed to stand for elections except in reserved constituencies. There was still fear of the higher castes. She had wanted to construct a road through the village but the elders dissuaded her from doing so, fearing a backlash from the higher castes.

There are other social problems like excessive drinking, gambling, dowry, child marriage and discriminatory treatment towards the girl child. Five of the seven respondents expressed a strong desire to educate their children, even the girl children. It was only when the children themselves showed a disinclination towards studies that their studies were discontinued. There is no data on their views about the other problems.

4. Participation in community affairs: Three respondents, who handled administrative responsibilities in the group, said that they had been able to get a hand-pumps for water and streetlights for their village. Two of them also initiated smaller groups (locally called "chit funds") where money or grain was saved and loaned to members.

Among respondents with no administrative responsibility, one of them had initiated a chit fund and was still running it. Confidence in initiating and running it came because of participating in the savings-and-credit groups. She adopted many of the rules of the savings-and-credit groups in the chit-fund she initiated. Another was heading the local government institution called *panchayat*. She said she had made it possible for a TV room to be constructed in her village. She had also helped bring in a new water pipeline to the village. Her parents and in-laws were politically active people. Her entry into politics and subsequent work for the benefit of the community did not seem to have been the result of joining the savings-and credit groups.

Conclusions

These findings are based on a small sample of respondents from one district in a state. The conclusions we draw will therefore have to be tentative.

Women with administrative experience display more independence in making the decision to continue in administrative positions in their groups. They also report greater freedom in purchasing for the family. (It is difficult to say that this was a result of participation in the groups.) They still depend on their husbands economically, though this dependence is mutual rather than one-sided. They are developing confidence and forming new identities. This is evident in greater articulation in public forums, greater ease in interacting with people of other institutions and following up with them for facilities like hand-pumps and streetlights, greater mobility outside their villages. They express strong identification with the group and derive satisfaction from being looked up to for advice. They enjoy being trusted by other women. They want to help other women increase their wealth and purchase new things. However, traditional identities of being primarily responsible for looking after the family continue to coexist with the new identities.

Respondents without administrative responsibilities (and who were financially dependent on their husbands) participate in some family decisions. However, they do not make any decision independently. They are not exploring new identities as actively. They are not initiating activities that question societal norms or address societal problems.

They are not involved in obtaining facilities like roads and streetlights to their community. They have not acquired many of the skills that respondents with administrative responsibility have.

It is difficult to say whether participation in the administration of groups *caused* more empowerment. Some of these respondents were selected to be leaders of their groups because they were seen (by other members) as more talkative and assertive. But, respondents with administrative responsibility attribute much of their confidence and abilities to their experience in the savings-and-credit groups.

Implications for HRD

For Research: Accounting for differences among the women.

Since the sample is so small, it is difficult to generalize the findings and conclusions. However, the study throws up some new questions that need systematic study.

1. Are there significant differences in the empowerment across beneficiaries of savings-and-credit groups? Are women with administrative responsibility in these groups more empowered than those without such responsibility? Our study suggests that differences in empowerment between those with and without administrative responsibility could exist. Larger samples are needed to establish the significance of these differences.

   If there are differences in empowerment, what causes them? Do women who take up administrative responsibility have different backgrounds or personality profiles that account for these differences? Or is it their experience of administrative responsibility that enables empowerment? Our study indicates the possibility of self-selection for administrative positions. However, once administrative responsibilities are assumed, their exposure to a variety of experiences does appear to empower them further.

2. Traditional roles of men and women in their families seem to continue despite this intervention. Consequently, women with administrative responsibilities in the groups are often working more and tiring more. The existing gender imbalance in terms of the work done and returns received would continue unless the roles are renegotiated.

   What is required is a change in the mindset of women and men. How can this be achieved, especially among the lower castes, who have faced centuries of discrimination?

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The Concept of Culture in International and Comparative HRD Research: Methodological Problems and Possible Solutions

Alexander Ardichvili
K. Peter Kuchinke
University of Illinois at Urbana-Champaign

The goal of the present paper is to illuminate some of the central issues in international and comparative HRD research, by helping HRD researchers to better understand the current approaches to culture, and by discussing the methodological problems arising from the current use of the concept of culture. Several alternative approaches to culture in international research are analyzed and criticized.

Keywords: International HRD, Cross-cultural Research, Culture

While many scholars in human resource development (HRD) and related fields have pointed to the dearth of international and cross-cultural research (e.g., Hansen & Brooks, 1994; Brewster, Tregaskis, Hegewich, & Mayne, 1996), in recent years, international and comparative research has become one of the fastest growing areas of scholarly inquiry in HRD. Within the Academy of HRD, international membership and the number of international papers presented at the Academy of HRD meetings have increased steadily; and numerous cross-cultural and international articles have appeared in all major HRD publications. The reasons for this increased interest in international research were summarized by McLean (2002), and Marquardt and Sofo (1999), who argue that globalization of business practices is inevitably leading to conditions under which most HRD practitioners, regardless of their specialization, need to understand and be able to influence cross-cultural and cross-border HR, training, and organization development practices. As Cray and Mallory (1998) point out, all international and comparative studies, regardless of specific topics of investigation, sooner or later refer to culture. While multiple approaches to cross-cultural research design have been identified (Usunier, 1998; Vijver & Leung, 1997), the treatment of culture in international HRD research is a matter of much deeper import than the selection of an appropriate research design and centers on our ontological and epistemological assumptions about the nature of culture and its role in shaping the phenomena of interest and our ability to understand cultures (our own or another) in a complete sense. Therefore, the goal of the present paper is to illuminate some of the critical issues and problems in international and comparative HRD research, by helping HRD researchers to better understand the current approaches to culture, and discussing the methodological problems arising from the current use.

Alternative Approaches to Studying Culture

A useful classification of social science research methodologies was proposed by Denzin and Lincoln (1998), who places all studies on a continuum, with constructivist and critical science studies on the one side, and positivist and postpositivist studies—on the other. The studies of the constructivist paradigm assume that there is no single reality out there that can be discovered by the researcher, and the reality is, rather, constructed by humans in their interactions. The postpositivist research, on the other hand, is based on an assumption that reality is —at least to some degree— stable and that, thus, the effort to uncover rules, theories, and models is a worthy goal of research. Thus, in the area of international social science research we identify the following major theoretical approaches, which provide alternative treatments of culture: postpositivist studies grounded in cross-cultural psychology; and three constructivist approaches: interpretive and ethnographic studies; studies in the cultural-historical tradition; and semiotic studies. In the pages that follow, we will provide a brief overview of these four strands of research, point out why we feel that all four fail to provide a satisfactory treatment of culture in the context of international and comparative research, and will propose strategies for improving our ability to account for the culture's role in international HRD research.

Models of Cross-Cultural Psychology

One treatment of culture has been pursued vigorously by cross--cultural psychologists over past two decades

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and has resulted in substantive and methodological advances related to shared cognition, assumptions, and values as fundamental building blocks of culture. A major tenet of cross-cultural psychology is the existence of psychological universals, frameworks for making sense of the tremendous variety and complexity of individual behavior and thought across the cultures of the world. The field is thus grounded in a realist conception of science as the search for patterns, regularities, and parsimonious explanatory systems that are pan-cultural without violating local and culture specific interpretation and meaning (Lonner, 2000). The cross-cultural research program has led to advances in theory by indexing countries along dimension of culture and mapping culturally similar regions, calculating value-related scores, and investigating the effects of national culture on a range of variables. Smith and Schwartz (1997) believe that values are "key elements, perhaps the most central, in [a society's] culture...[V]alue priorities of individuals represent central goals that relate to all aspects of behavior" (p. 79). Values represent beliefs and refer to desirable goals, they transcend specific action and situations and serve as standards for and of behavior, people, and events (Schwartz & Bilsky, 1987). Values can be described at the personal and at the group level. Societal values represent ideas about what is good, right, and desirable, and find expression in individual behavior of a country's residents and also in that country's institutions as reflected in institutional goals and modes of operation. The vast majority of cross-cultural research has been conducted at the national level of analysis, although the degree of within-country variation has led writers such as Triandis (1995) to question this approach, especially in nations with sharp divisions among cultural groups. However, nationality has been shown to account for substantial amounts of variance in a variety of variables (e.g., Kuchinke & Ardichvili, 2002; Sak & Brannen, 2000), lending support for Hofstede's (1997) assertion that nations exert strong forces towards integration though a dominant language, institutions, political systems, and shared products, services, and national symbols. Thus, much cross-cultural research is based on the average value priority among national samples that is thought to represent the central thrust of a common acculturation (Smith & Schwartz, 1997), irrespective of individual differences. Since the 1980s, there have been four major programs of research on national values, and these will be summarized below.

Hofstede's Values Survey. Hofstede's (1980) classification of work-related cultural values is based on large-scale employee survey data collected at IBM and subsidiaries in 40 countries around the world. The study data bank of over 116,000 questionnaires reflected responses from seven occupational groups, including clerical, technical, professional, and managerial engaged in marketing and servicing. Hofstede used factor-analytic techniques and conceptual item analysis of country-level item scores and arrived at four underlying dimensions: Power Distance, the degree to which unequal distribution of power in institutions is accepted as legitimate by those less powerful; Individualism, the degree to which persons are expected to care primarily for themselves and their immediate families as opposed to caring for the wider in-group; Masculinity, the degree to which achievement, heroism, assertiveness, and material success are valued instead of relationships, modesty, caring, and interpersonal harmony; and Uncertainty Avoidance, defined as the degree to which persons are uncomfortable with uncertainty and ambiguity, thus valuing stability and conformity. Bond (Chinese Culture Connection, 1987) extended Hofstede's research by constructing a survey of values based on interviews with Chinese scholars and collected information from students in 23 countries, resulting in an additional factor Confucian Work Dynamism, subsequently adopted as a fifth dimension of Hofstede's (1997) framework as Long-term Orientation, expressing the orientation towards the future characterized by persistence, thrift, and observation of status versus personal steadiness and stability, protection of one's face, and respect for tradition.

Trompenaars' Values Survey. Trompenaars' approach to culture is based on sociological models (c.f., Parsons & Shils, 1951), of basic elements of social relationships as a way of tapping into employees' values in business organizations. Initial work with ten organizations in nine countries and some 650 participants in the mid-1980s has been expanded to over 15,000 participants from 50 nations (Trompenaars, 1994) most of whom were upper-level managers and professional employees participating in cross-cultural training programs. Trompenaars posits seven bipolar dimensions: Parsons' five relational orientations: universalistic versus particularistic rules for relationships ("what is right and good can be defined and always applies" versus "giving attention to the obligations of relationships and unique circumstances"); individualistic versus collectivistic views of the responsibility of individuals (whose primary obligation is either to the self or to the social group); neutral versus emotional ways of expressing feelings (either detached and objective or with full force of the underlying emotion); specific versus diffuse modes of involvement in social transactions (persons engaged in their specific roles as, for example, educators or bringing into play all facets of one's personality); and achievement versus ascription as the basis for according status (as either based on performance and accomplishments or on educational record, family ties, gender, age, and other attributes). In addition, this framework includes a society's attitudes towards time (as a linear

sequence of events versus a synchronous notion of past, present, and future as cyclical, repetitive, and commingled); and stances toward the environment (as subject to human control or requiring harmony and acquiescence).

The Schwartz Culture–level Approach. Schwartz and colleagues, in a series of influential articles, have addressed the structure of individual values in a comparative, cross–national perspective (e.g., Schwartz, 1994; Schwartz & Bilsky, 1990; Schwartz & Sagiv, 1995). Using Kluckhohn's and Rokeach's cross–cultural works on values as a point of departure, Schwartz developed and validated a theory of human values and their underlying motivational goals. Arguing that universal human values are those that represent the basic requirements of individuals (biological needs, requisites of coordinated social action, and demands of group functioning), he proposed 10 motivational types of values, including power, achievement, hedonism, benevolence, and tradition. Specific value systems arise from value types in particular social, historical, economic, and geographic circumstances. As Smith and Schwartz (1997) report, this framework and associated instruments have been applied in 54 countries and some 44,000 individuals, primarily schoolteachers, and is thought to present a comprehensive "near–universal" (p. 88) set of value types at the individual level. Conceptually independent from this work, Schwartz also proposed three culture–level value dimensions that reflect, at the societal level, solutions to basic social problems. Societal issues are those concerning the assumption of the relationship between the individual and the group, the responsibility of the individual to contribute to the common good, and the role of humankind in submitting to, adapting to, or exploiting the natural and social worlds (Schwartz, 1994). The first dimension is labeled conservatism versus autonomy, reflecting the views of a culture to see individuals as primarily autonomous or imbedded in a web of social relationships and obligations, both intellectually and affectively. The second dimension, hierarchy versus egalitarianism describes a culture's way of ordering social relationships by ascribing roles and legitimizing unequal distributions of power, wealth, and influence, or by portraying individuals as moral equals with equal rights and responsibilities. The third dimension, mastery versus harmony, addresses a culture's stance towards the social and natural environments. Mastery cultures seek to influence and change the natural and social worlds for personal and group interests while harmony cultures accept the natural and social worlds as they are and emphasizing fitting in harmoniously and adapting to them.

Individualism and Collectivism. Perhaps the largest number of empirical studies in cross–cultural psychology and related fields have been based on a single dimension of culture: individualism and collectivism, with Smith *et al.* (1996) asserting that it "is probably safe to infer that this dimension is the most important yield of cross–cultural psychology to date" (p. 237). Triandis (1995) stated that most salient differences in behavior in international comparisons might be reduced to this dimension. Though by no means a new concept— Kagitcibasi (1997) traces its roots in social thought to ancient Greece in the West and Confucius in the East—there has been widespread interest in this dimension in recent past 20 years. Although definition vary to some degree, features and component ideas of individualistic societies include the view of the individual as an end in him or herself, belief in the obligation to realize the Self, to cultivate one's own judgment, and to resist social pressures toward conformity (Kagitcibasi, 1997). In collectivist societies there is an emphasis on the views, needs, and goals of the group; on social norms and duty as defined by the group; on shared beliefs and traditions; and on a readiness to cooperate and surrender personal goals to group interests. Antecedents of individualism include affluence, cultural complexity, social mobility, urbanism, and technological and economic development. These factors are related to an orientation focused on the Self and the immediate family, emotional detachment from the collective, a view that personal goals have primacy over those of the larger group and that behavior is regulated by rationality and cost–benefit analyses. Consequences of individualism include socialization for self–reliance and independence, adeptness when entering new groups, and loneliness. The many applications of this dimension—including its consequence for a wide range of individual–level variables, interpersonal and inter–group relations, and social institutions summarized by Triandis (1995) and Kagitcibasi, (1997)—lend credibility to assertion that it does present a valid, useful, and universal dimension of culture. Current debate concerns questions of whether individualism and collectivism might be more usefully conceived as separate attributes rather than as opposite poles of a continuum, whether each should be viewed as multidimensional, and what part of each might be conceived as trait or situation–based. Triandis (1995) has recently added to these conceptual refinements by arguing that in both individualistic and collectivistic societies, behavior and attitudes that go 'against the grain' are quite common. Triandis proposes four categories: vertical and horizontal individualism (self and group orientation respectively within a self–oriented culture) and vertical and horizontal collectivism (self–and group orientation respectively within a collectivistic culture).

Constructivist Approaches to Studying Culture

After outlining the postpositivist and largely etic approaches to assessing culture, we now turn to three emic frameworks of culture: the ethnographic and interpretive approach; the semiotic approach; and the cultural-historical approach.

The Ethnographic and Interpretive Perspective in International Research. A comprehensive discussion of the tenets of ethnographic and interpretive research would be impossible in this short paper. Therefore, we refer the reader to excellent in-depth analyses of this paradigm in Denzin and Lincoln (1998) and in Jessor, Colby, and Shweder (1999). Here we will point out several major traits of this approach, which are most relevant to our discussion. The origins of interpretive and ethnographic perspectives can be traced to Wundt's (1911) studies of folk beliefs, and to early attempts by anthropologists to understand cultures from the natives' point of view (Mead, 1948). Ethnographic and interpretive international researchers are more interested in specific cases than aggregate relationships, in more accurately grasping the point of view of the actor, in yielding more contextually situated understanding, and in providing a fuller, "thicker," description of the phenomenon of interest (Becker, 1999). Methods associated with this research paradigm range from ethnographic immersion (Geertz, 1983) to interviews and observations (Goodenough, 1970), and analysis and interpretation of various texts generated by insiders (Van Maanen, 1990). A common characteristic of interpretive approaches is the belief that interpretive analysis can help to identify different definitions, concepts, and models of truth. For example, interpretive interactionism (Denzin, 1992) attempts to capture meaning and produce meaningful descriptions and interpretations of social processes from subjective points of view of different actors.

Semiotic Models of Culture. An approach to cross-cultural research that attempts to introduce a more encompassing perspective on culture is grounded in semiotics, the study of signs. There are good examples of the application of semiotics in sociology, organization studies, and management research (c.f., Barley, 1986; Manning & Cullum-Swan, 1998). An example of the application of semiotics in cross-cultural and comparative research can be found in the work of Russian linguist and semiotics scholar, Yuri Lotman. Lotman (1990) argued that semiotic systems (language, cultural rules, religion, art, science, and so forth) are models that explain the world in which we live and, in explaining the world, they construct it. Among all these systems, language is the primary modeling system, allowing us to apprehend the world (Eco, 1990). Therefore, the study of culture should start with the study of the language system used within this culture; however, we also need to study all the secondary systems, which allow us to understand the world from different angles, allow us to speak about it. The goal of the Lotmanian investigation of culture is not to explain all the phenomena of that culture, but an explanation of why that culture has produced certain phenomena. To do this, we can analyze culture as a code, as a semiotic system, discovering both universal to all cultures and specific to certain culture elements. Lotman argues that no historical period has a sole cultural code and that in any culture, there exist simultaneously various codes. He sees a culture as a set of texts, and a nonhereditary collective memory (Lotman, 1971). On this basis, Lotman has conducted numerous analyses of different cultures, moving both along the time (historical studies) and space (geographical and cross-national studies) continuum. An example of how to categorize cultures according to the systems of rules and codes used by them can be found in his "Universe of the Mind" (1990). Lotman argues that cultures can be governed by a system of rules or by a repertoire of texts imposing models of behavior. By analogy to language learning, Lotman calls the former category "grammatical" (in grammatical approach, learners are introduced to a new language by a set of rules), and "textual" (this is the approach to language learning used by small children, who learn through exposure to a variety of verbal strings of language, without knowing underlying rules). In a grammar-oriented culture, texts are judged to be correct or incorrect according to their conformity to previously generated combinatorial rules; in a text-oriented culture, society directly generates texts, which propose models to be followed.

Cultural Psychology and Cultural-historical Approach. Is it possible to conduct cross-cultural research that would account for both traits and psychological characteristics of individual players and the complex cultural environment they are situated in? An approach to answering this question could be found in cultural psychology and the cultural-historical research paradigms. Taking a radical stance, Shweder (1991) believes that this question by itself is not a legitimate one, and attempts to introduce culture into psychological investigations are misguided. He argues for adopting a different paradigm, which, instead of viewing human minds as isolated processing devices, operating with inputs received from the cultural environment, sees the mind as inseparable from "the historically variable and culturally diverse intentional worlds in which it plays a co-constructive part" (Shweder, 1991, p. 13).

The individual behavior is shaping the cultural environment, and is constantly being shaped by culture. Therefore, dichotomies of person and environment cannot be analytically separated and described in terms of dependent and independent variables. There are numerous research streams that join to form the cultural psychology paradigm. Thus, Bruner (1990) locates psychological processes within the social–symbolically mediated everyday encounters of people in the lived everyday experiences. Bruner argues that these experiences are organized by "folk psychology," including a theory of how narrative structures organize people's meaning–making processes in their everyday activities. In Germany, a group of researchers has developed an approach to cultural psychology that underscored a developmental approach to the study of human nature (Boesch, 1990). Using a form of action theory, they linked individual change to historical change by interrelating "the three main levels of the concept of development within the same theoretical language: the actual genesis (process), the ontogeny, and the historio–genesis" (Eckensberger, Krewer, & Kasper, 1984, p. 97).

Another approach to closing the gap between individuals as subjects of cross–cultural research and their environment was proposed by scholars working in the cultural–historical research tradition (e.g., Cole, 1996; Cole & Engestrom, 1993), which emerged from the work of Russian psychologist Lev Vygotsky and his followers. Central to this approach is rejection of the separation of individuals and their social environment. This idea is expressed by Vygotsky in the "general law of cultural development," which assumes that any higher psychological function appears "...on two planes. First it appears on the social plane and then on the psychological plane. First it appears between people as an interpsychological category and then within the individual child as an intrapsychological category." (Vygotsky, 1978, p. 57). Cole (1996) elaborated on the Vygotskian approach to cross–cultural investigations by putting emphasis on the following elements: mediated action in a context; importance of the "genetic method" understood broadly to include historical, ontogenetic, and microgenetic levels of analysis; grounding of the analysis in everyday life events; distributed and co–constructed nature of cognition; rejection of cause and effect, explanatory science in favor of science that emphasizes emergent nature of mind in activity and the central role for interpretation in research. Cole and Engestrom (1993) posit the *activity system* as the basic unit of analysis of individual and collective behavior. An activity system is any ongoing, object–directed, historically conditioned, and tool–mediated human interaction. It could be a family, a religious organization, a study group, a school, or a profession.

Critique of the Current Approaches to Culture

Despite significant contributions made by the above described research traditions, all of them suffer from a number of methodological problems, resulting in the following paradox: none of the approaches seems to be able to produce results that they claim to be their main advantages. Thus, *postpositivist* research is aimed at generation of universal, generalizable models and results, but there are numerous convincing arguments showing that this claim doesn't stand in international studies. And *constructivist* researchers pride themselves on their ability to report more realistic pictures of informants' lives, emotions, and feelings but, as numerous critics point out, they fail to do just this. Criticisms of *postpositivist approaches* exist on two levels: philosophical and methodological. At the philosophical level, critics point out the fundamental impossibility of capturing and describing the objective cultural reality, because, in their opinion, such reality does not exist outside the researcher's and the study participants' fluid and constantly changing perceptions and interpretations (Eco, 1992). The main methodological criticism is that "inferences drawn from aggregate data may not apply to all—or even any—of the individuals making up the aggregate" (Jessor, 1999, p. 12). In addition, international studies grounded in these approaches have been plagued by numerous methodological problems, among them inability to establish functional and conceptual equivalence of phenomena and behavior, and translation, sampling, measurement, and data collection errors (Harpaz, 1996). Of these concerns, the lack of conceptual equivalence (do the concepts used have the same meaning across the social units studied?) is among the most often discussed in the literature. For example, Usunier (1998) has demonstrated that the concept of "trust" has different meanings in the U.S., France, Germany, and Japan, making any comparative studies based on the U.S. concepts of trust difficult to uphold. The lack of functional equivalence is another common problem of cross-cultural psychology research: in many cases, even when concepts have the same meaning across cultures, these concepts perform different functions. Thus, even though the basic meaning of friendship may be similar in the U.S. and China, the functional role of friendship in the two cultures is different (Pye, 1986).

Constructivist approaches are most often criticized for the lack of generalizable conclusions. But, most studies of this group rest on an assumption of impossibility of any generalizations and concentrate instead on the generation of localized, context–specific knowledge (Lincoln & Guba, 1986). Thus, poststructuralists (Foucault, 1980) and postmodern theorists (Lyotard, 1984) write local narratives about people's work and interaction, and reject the notion of generalizability of their results. However, what is supposed to be constructivism's advantage over

postpositivist research— researchers' ability to present more accurate accounts of participants' inner worlds and social interactions between them—is being increasingly questioned by constructivist researchers themselves. It is pointed out that most of researchers are just poorly informed outsiders who lack the background to understand the intricacies of local cultures and symbolic systems. As Tobin and Davidson (1990) point out, "in most cross–cultural educational research, Westerners study non–Westerners, whites study nonwhites, scholars study practitioners, and men study women and children" (p. 271). Recent attempts to address this fundamental problem involved methods of "polyvocal discourse," a "Rashomonian telling and retelling of the same ... events from different perspectives, an ongoing dialogue between insiders and outsiders, between practitioners and researchers..." (Tobin, 1989, p. 176). But, as Marcus and Cushman (1982) suggest, "While it is laudable to include the native, his (sic) position is not thereby improved, for his words are still only instruments of the ethnographer's will..." (p. 44). The researchers control and distort the informant's voices by imposing their own interpretations, narrative styles, and choices of the elements of the native's text to include in the research report (Clifford, 1983).

New Directions for International and Comparative HRD Research

The above discussion suggests that both postpositivist and constructivist approaches in international research fail to reach their stated goals: researchers are unable to generate either true insider accounts or universally usable models. To solve this problem, we would need to find and employ approaches that would improve our ability to understand and present accurately perspectives of different actors (research participants and other stakeholders). The importance of understanding the stakeholders' point of view and experiences was stressed in early anthropology writings (Mead, 1934), and in linguistics (Clark, 1985). One of the approaches to improving this understanding is mutual perspective taking, which happens when researchers and their subjects approach each other with a sense of nonjudgmental openness (Tenkasi & Mohrman, 1999). Although perspective taking does not completely solve the paradox of the insider's account, it helps to alleviate the problem by providing tools for bringing into the investigation multiple voices (those of researchers, the subjects, and other stakeholders), and making different perspectives explicit. An important prerequisite for true mutual perspective taking is creation of interpretive spaces for mutual meaning making (Tenkasi & Mohrman, 1995), for opening of one's preconceptions and assumptions to oneself and to others (Habermas, 1979). These spaces are similar to what Bresler (2002) calls "interpretive zones" in the conduct of international research. In Bresler's conceptualization, such zones are areas of overlap, joint custody, or contestation, where solutions have to be devised with the materials at hand. The interpretive zones involve dynamic processes of interaction and negotiation of multiple perspectives. Another approach that attempts to promote mutual learning and understanding across cultural contexts is appreciative inquiry (Cooperrider & Bilimoria, 1993). Used as a methodology for studying global social change, appreciative inquiry establishes ground rules promoting an uncritical approach to the others' perspectives, and calls for understanding the others' points of view without criticizing their knowledge claims (Tenkasi & Mohrman, 1999). A key to using appreciative inquiry and/or perspective taking in cross–cultural settings is to involve different actors holding competing definitions of a problem, who can act as "semiotic brokers" (Lyotard, 1984). This view of inter–cultural communication is based on the work of Mikhail Bakhtin who first introduced the notion of multivoicedness. The construction of realities for Bakhtin is dialogic. It is through dialogue that space for new realities is created (Bakhtin, 1981). Therefore, in contrast with most hermeneutic studies (e.g., Gadamer, 1976), the Bakhtinian metaphor for cross–cultural research is not centered on attempts to understand others' perspectives, as if these perspectives where rigid, ones–and–for–all given, but a constant creation of new realities in a multivoiced dialogue involving the researcher and the subjects.

The above methods are aimed at enhancing the intersubjective understanding. However, before the distance between different participants in the research process can be reduced, researchers should be able to better understand their culturally conditioned interpretation biases. Usunier (1998) argues for cultural deconstruction as a way of addressing the issue of these biases and suggests that it should be used in both postpositivist and constructivist studies. Because most cross–cultural research situations involve encounters between researchers and instruments from one culture and informants from another, it is necessary to start any investigation with a pre research self–inquiry: "Cultural deconstruction ... involves a systematic investigation of the basis on which the research design will rest, including a self–assessment of the researcher's own part in terms of underlying concepts and theories, as well as attitudes towards the research practice" (Usunier, 1998, p. 137). Usunier (1998) argues that we, as researchers, are likely to produce a certain kind of research and research reports as a function of our perception of the tastes of our immediate scientific community and the dominant professional culture of the major stakeholders. Plus, our interpretations could be significantly biased by our own and the major stakeholders' national culture.

Conclusion: Dealing with Complexity

The argument presented in this paper suggests that our ability to conduct international HRD research that produces useable results depends not so much on our choice of methodologies, but on our ability to incorporate in our investigation culture as a major influencing factor, and to account for culture's influence on phenomena under investigation. And to do this, we need a better understanding of our own and others' culturally conditioned perspectives and assumptions. This understanding is achieved by cultural deconstruction, appreciative inquiry, using the insider/outsider perspectives, and mutual perspective taking. However, even if such better understanding is achieved, one overarching problem of the international research will remain: a researcher from one country is not likely to have necessary cultural background to understand, notice, and record the intricacies of day to day interactions between individuals from other cultures and locales, or to develop universally valid constructs to be used in quantitative models. A solution to this problem is found in the use of cross–cultural teams of researchers (Teagarden, et al. 1995), with individual team members conducting investigations in familiar to them and geographically proximal locales—although here, too, the cultural divide among the team will present challenges in inter-subjective understanding and much work is required to bridge the gap.

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Global Change and New Organizational Paradigms: HRD Research Issues

Reid Bates
Louisiana State University

Kelli C. Phelan
Texas A&M University

The absence of discourse in HRD about organizational paradigms wrought by globalization represents both a critique of the field and an opportunity. Presenting the paradigm of ecologically sustainable organizations as a focus, this paper challenges HRD to recognize and respond to a number of important research questions related to human and organizational dimensions in the era of global change. Addressing these questions offers HRD a chance to broaden its research domain and enhance its contribution to worldwide social and economic development.

Keywords: Global Change, Sustainable Organizations, Ecological Values

That the world has entered an era of globalization has become accepted fact, or as Kobrin (1998) concludes, it is a fait accompli. What exactly globalization is, however, is less clear. The predominant tendency is to view globalization as an "epochal shift" (Burbach & Robinson, 1999) wrought by the integration of capital, technology, and information to create a single global market (Friedman, 2000; McLean, 2001; Rodrik, 1997). In this view, globalization is a qualitatively new economic development characterized by the transnationalization of production and capital ownership that powers in its wake changes in other spheres of life. Others (Cooperrider & Dutton, 1999; Mayer, 2001) see globalization as a much broader, more complex and historical phenomena. From this perspective, globalization consists of a number of ongoing parallel processes including ecological change, the integration of ecosystems, human mobility, global trade and investment, culture change, the spread of human rights and democracy that are occurring simultaneously and in many cases reinforcing one another.

A number of fields of study in the social and behavioral sciences have recognized that the changes being wrought in the context of this broader view of globalization require a greater emphasis on research and theory examining the processes of global change, sustainable development, and global interdependence. Multidisciplinary efforts along these lines represent a broad area of inquiry directed at:

- Increasing our understanding of the dynamics of global change
- Strengthening efforts to study and anticipate social changes
- Identifying social strategies to mitigate the effects of global changes
- Analyzing organizational and strategic options that can contribute to sustainable economic and ecological development (Cooperrider & Bilimoria, 1993).

This final element noted above is important because it recognizes that organizations and global change issues are intimately intertwined. Analyzing this relationship and understanding how complex organizations interpret and respond constructively to global change offers substantial opportunities for scientific inquiry in organizations. These opportunities have given rise to a new field of inquiry labeled organizational dimensions of global change (Cooperrider & Dutton, 1999). Research and theorizing in this area are particularly important because of the increasing prominence of non-governmental and inter-governmental organizations in social, political and economic development, and the power of transnational corporations as engines of global change (Bilimoria, Cooperrider, Kaczmarski, Khalsa, Srivastva, & Upadhayaya, 1995; Khandawalla, 1988). Indeed, it has been argued that nothing on the global change agenda can be fully understood outside the role and functioning of organizations: "Any effort to understand . . . global change that does not include a sustained commitment to improving our knowledge of the organizational dimensions cannot succeed" (Cooperrider & Dutton, 1999, p. 4).

The purpose of this paper is to identify and discuss why the field of HRD should be concerned with organizational dimensions of global change, and moreover, discuss a number of ways in which the field of HRD can contribute to the needed research in this area. Our suggestions focus on issues related to the organizational paradigm, ecologically sustainable organizations, which has received little attention in the Western HRD literature.

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Our hope is that this paper will initiate a dialogue about HRD's potential contribution to this important area, and also about the implications this focus has for broadening HRD's domain of inquiry, theory, and practice.

New Organizational Paradigms

A burgeoning number of organizational scholars have recognized that the global age will require more from business organizations in terms of their commitment and responsibility to environmental, social, and financially sound management and investment policies than has been the case in the past. This broader set of responsibilities will be expressed through new, more proactive organizational paradigms. These new paradigms have been discussed under rubrics such as strategic global change organizations (Cooperrider & Dutton, 1999; Khandawalla, 1988), natural-resource-based corporations (Hart, 1995), ecologically sustainable organizations (Shrivastava, 1994), ecocentric organizations (Purser, Park, & Montouri, 1995), and mediating institutions (Fort, 1996).

Two key assumptions underlie the development of these paradigms. One is that the hyper-capitalized globalized economic system (Rifkin, 2000) is an element of global change that in most cases does not deliver socially or ecologically responsible results. That it is in fact "breaking down patterns of life and community, imposing a dynamic of rapid change on many segments of most societies, and severely degrading the natural environment on which business, communities, and ultimately human life are dependent" (Mayer, 2001, pp. 218-219). In addition, it is assumed that business is mistaken in its belief that "enlightened self-interest will guide society to a sustainable future" (Purser et. al., 1995 p. 1062). This is because when faced with a choice between socially responsible business activities or sound ecological practices and economic advantage, business will almost without question choose economic advantage. This 'egocentric orientation', in which organizations devote their resources to the optimal utilization of social and natural resources in the pursuit of competitive advantage, leads to disjunctive thinking characterized by limited scope, imaginary oppositions (e.g., human versus nature), as well as difficulty in fully understanding how nested organizational activities are within social and ecological systems (Purser et. al., 1995). A number of authors criticize the present global economic system as inefficient, unstable, wasteful, afflicted with short-termism, destructive of communities, cultures, and the natural environment, socially divisive, and ultimately one that does not represent the optimal system of allocation of resources needed to meet human needs (Hawken, 1994; Korten, 1996; Madeley, 1999; Soros, 1994). Dowling (1999) describes it as the "the increasingly complex international environment." He adds that it is "characterized by global competitors, global customers, universal products, rapid technological change, and world-scale factories which pushes the multinational toward global integration while, at the same time, host governments and other stakeholders (customers, suppliers, and employees) push for local responsiveness" (p. 40-41).

Consequently, one key defining feature of the new organizational paradigms is their view that corporations have a responsibility and constructive role to play in creating positive global change (Harman & Hormann, 1990). The new organizational paradigms are concerned with emancipating ecological, social, and cultural systems from organizational mismanagement and abuse. They emphasize achieving a balance between productive systems and ecological and social systems and making organizations accountable for what they do and what they invest in. Some see the value of these paradigms as bridging the dichotomy between modern bureaucratic organizations and the demands of a postmodern global system of change (Cooperrider & Bilimoria, 1993; Daly & Cobb, 1994) and creating what can be called ecologically sustainable organizational performance. A number of fields of scientific inquiry including anthropology (Kearney, 1995), sociology (Boulding, 1988; de Oliveira & Tandon, 1994), organizational behavior (Khandawalla, 1988), leadership (Egri & Frost, 1994), strategic management (Cooperrider & Biliamoria, 1993), organizational learning (Mylonadis, 1993), organizational design (Ostlund & Larsson, 1991), and business ethics have begun to take keen interest in paradigms such as these. There is currently, however, no discussion, research, or theorizing about these new organizational paradigms in the field of HRD. If HRD is going to be a leader in the development of individuals and organizations in the 21st century, then it is immediately challenged with the responsibility of responding to these paradigms through the conceptualization of new roles through research, theory, and practice. With HRD's primary concern with human growth and developmental activities, we believe it is uniquely positioned for meeting these challenges, facilitating leadership roles in organizations, and simultaneously increasing value to the profession.

HRD and Organizational Dimensions of Global Change

Considering the underpinnings of HRD, a logical flow of reasoning can be revealed as to why HRD should be concerned with organizational dimensions of global change. While HRD is a relatively young academic discipline, its foundations are grounded in systems theory, which presents a broad, open, and whole perspective on

environments and their physical and non-physical boundaries; hence, supporting the interconnectivity between organizations and global change. In addition, several scholars have articulated descriptions that attempt to define the academic and practical scope of the field of HRD, but of particular interest to this paper is a recent definition by a noted HRD scholar. It reads: "Human Resource Development is any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity" (McLean & McLean, 2001). The latter poses several alternatives for viewing/conceptualizing the role(s) of HRD and their possible contributions to a greater sense of development in the cultural, social, economical, and environmental realms.

HRD is by nature interdisciplinary and focuses on application of methods and processes designed to advance learning, meaning, and performance in work systems. This focus assumes that work systems are created to enhance the human condition and that they do not exist independently from the people that comprise them. Rather they are composed of people and processes, often multiple collectives with complex systems of social relationships, which have a shared set of symbols (e.g., language) and experience. The fact that work systems are composed of the human element makes them the appropriate focal point for HRD activity. It also means that by their very nature they can be greatly affected by the dynamics of global change. We therefore suggest one critical area of research for HRD to address is how the process of human resource development can help facilitate a transition towards these new organizational paradigms associated with global change. The concept of ecological sustainability through organizations is offered as a focal lens for HRD to view a new organizational paradigm. Two critical issues to be considered with this concept include the roles that ecological values and value transformation play in this transition.

HRD and Ecological Values

Several organizational scholars have discussed the kinds of changes that will have to occur as organizations transition to these new paradigms involving greater ecological responsibility and/or values. For example, Jennings and Zandbergen (1995) indicated that this type of change will require deep changes in the culture, strategic adaptability and learning systems of organizations. Hart (1995) suggests this transitioning will require a shared future vision that penetrates throughout the corporation. Post and Altman (1992) have offered a three stage model of "corporate greening" that suggests shifting to these new paradigms will require substantial changes in organizational strategy and its implementation which, to be successful, must be accompanied by the transformation of organizational culture and learning systems.

The previous views of shifting to an ecologically sustainable focus for organizations recognize that the deep integration of ecological values into the culture and learning systems of organizations is a necessary vanguard for the kind of change needed to realize these new organizational paradigms (Throop, Starik, & Rands, 1993). They are explicit about the need for a deep-seeded change in values within organizations as a precursor to paradigmatic changes in practice. These value changes should center on the development of value structures oriented around a profound individual and organizational understanding and acceptance of the principles of ecological sustainability as a social good. The transformation and creation of value structures within organizations and individuals is important because these structures provide standards for conduct (Williams, 1968) and behavioral guides capable of transcending specific situations (Schwartz, 1992). In short, they provide individuals and organizations with an ordered framework for resolving conflicts and making decisions consistent principles of ecological sustainability.

One critical area for HRD research and dialogue would involve an active consideration of the values and belief systems associated with ecological sustainability. This would involve, first, research directed at defining the structure and content of a value system centered on ecological sustainable organizational performance. There are a number of organizations that have begun to embrace these principles at varying degrees which would provide a key resource for more concretely defining these values. Research in these organizations could begin to define a factor or facet structure of these values.

HRD and Value Transformation

Next, it would be productive to develop some theoretical and practical understanding of the role that HRD plays in framing and developing ecological values in organizations. For example, HRD has been characterized as the social conscience of organizations (Gilley & Maycunich, 2000), a role that is concerned with diversity and equality in work systems, issues of social responsibility (Hatcher, 1998; 2000) and sustainable human development. Several pressing questions present themselves for HRD. First, discourse is needed to define the responsibilities of a 'social conscience' role and determine the extent to which this is an appropriate role for HRD. To the extent this role is

appropriate and can be defined, research will be needed on the models or theories that can most effectively enhance our understanding of this role and how it can be implemented in organizations. For example, as architects of organizational performance systems and facilitators of human learning and development, perhaps HRD can best facilitate change by embodying ecological values and expressing them in organizations through a legitimate 'check and balance' role (McAndrew, 2000). Or perhaps HRD's role in the development and dissemination of ecological values can better be understood through the application of Burgoyne and Jackson's (1997) 'arena thesis'. In this view, HRD assumes the role of mediator where value and goal conflicts between organizations and the requirements of ecologically sustainable development are clarified, negotiated and resolved.

In the context of these roles, further work will have to be directed at understanding the problems that will be faced in developing and deeply embedding an ecological value system in organizations. For example, what kinds of powerful social processes (Senge, 1990) need to be set in motion to generate consensus about the meaning of ecological sustainability, its valuation as a social good, and core purpose of the organization? How can these values be legitimated, disseminated, and maintained? What kinds of empowerment practices (self-management, participative decision-making) are most effective at building intra-organization commitment to these issues? If values must be actualized in practice in order to be instrumental (Argyris, 1990), what are the links between these values and the skills needed by individuals to be effective in organizations oriented around ecologically sustainable principles? What attitudes, values, and competencies are needed by organizational leaders to deal with these issues at a strategic level? How are they best developed?

Furthermore, there has been an increasing scholarly interest over the last decade in issues such as spiritual development in leaders (Conger & Associates, 1994; Vaill, 1990) and managers (Block, 1993; Hawley, 1993). Unfortunately elements of spirituality and personal transformation are typically a secondary consideration in HRD, subordinate to learning and performance improvement goals. Consequently, although a handful of scholars have recognized the value of these processes as important dimensions of HRD (Hatcher, 2000; Hawley, 1993) little research has been done in this area. Key research questions could investigate the effect that personal transformation has on the transition of organizations to ecologically sustainable paradigms. For example, how does the personal transformation of leaders and managers affect organizational goals, employee behavior, personal and organizational value structures, culture, perceptions of accountability and social responsibility, and global consciousness? Considerable attention will have to be paid to theory development and evaluation in this area so as to provide some insight into key theories or models that might useful for understanding and managing this change process. Descriptive examples, case studies, and first-hand accounts of organizations that have been fundamentally changed through the personal transformation of its members could provide a wealth of information and help determine what is to be learned from these experiences.

At another level of analysis, organizations capable of matching values with goals and objectives are seen as having the capacity to be powerfully effective. This has led to speculation that the deep acceptance of values associated with ecological sustainability will lead to more innovative and progressive organizations (Jennings & Zandbergen, 1995) or to substantial increases in the development of new, low-impact technologies and competencies (Hart, 1995). What kinds of data can we generate to support or refute these hypotheses? Competing propositions regarding these and other questions centered on values and the shift to ecologically sustainable organizational paradigms can serve as a basis for future descriptive and prescriptive research in the field of HRD.

Summary & Conclusions

The era of globalization has entered the world. The perspective of globalization as a historical and complex phenomenon presents a broad set of new challenges for the organizational sciences. A number of disciplines have stepped up to accept this challenge. Unfortunately, HRD has been late to step up to the plate. This paper suggests a few areas of research and inquiry through which HRD could make a contribution to organizational dimensions of global change research. The focus was on the organizational paradigm ecologically sustainable. We argue that the challenges inherent in this important paradigm offer a tremendous opportunity for HRD to enhance its contribution to social and economic development.

The current absence of discussion, research, or theorizing about these organizational paradigms in the field of HRD represents both a critique of the field as well as a call to broaden its research and practice. This paper outlines several areas into which HRD should expand its research. First, HRD is encouraged to actively seek to understand the structure of values systems associated with ecological sustainable organizational performance, and to investigate how to promulgate these systems in organizations. An example of this would include, What responsibilities are associated with a social conscience role, and is this an appropriate role for HRD? Other questions may be directed at principles of ecological sustainability, specifically its valuation as a social good in relation to organizational

practices. Another potentially informative research direction highlights the nature and role of personal transformation in meeting the organizational challenges of paradigmatic change. How do personal transformations of leaders in organizations affect various organizational structures? Finally, research directed at understanding the strategic, process and behavioral problems that characterize these kinds of organizations constitutes a critically important contribution to be made by the field of HRD. How can the values, goals, and objectives of organizations be strategically utilized for innovation?

How this Research Contributes to New Knowledge in HRD

It is clear that HRD is a fundamental tool for change and adaptation and is the primary mechanism through which the human capital of communities, organizations, and nations is increased and preserved. The recognition that HRD plays a critical role in human progress has put increasing demands on the field of HRD practice to address an ever widening range of objectives. This paper's contribution to new knowledge in the field of HRD is expressed in the form of a number of exciting and potentially fruitful questions related to human and organizational change in this global era. We suggested several areas into which our current research focus could be expanded. Our hope is that by doing so, we can raise the level of discourse within the HRD community and generate interest in honestly exploring these and other organizational dimensions of global change issues. However, we also believe that moving forward in this arena my require HRD as a profession to rigorously question some fundamental values and accepted paradigms, ask questions that challenge basic assumptions, and discover new values, theories and practices that can help lead organizations into the future.

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Expanding Perspectives on HRD Research: Understanding the Foundations of Phenomenology

Sharon K. Gibson
University of St. Thomas

Lisa A. Hanes
St. Paul Technical College

Phenomenology is a research methodology that has direct application to HRD as it helps explicate the essence of the human experience. This paper reviews the philosophical foundations of phenomenology and examines how this philosophy translates into a research methodology. The application of the philosophical concept of lifeworld is explored as it relates to the phenomenological research process. Outcomes of phenomenology are discussed in terms of its contribution to the knowledge base of human resource development.

Keywords: Phenomenology, Research Methodology, Philosophy

To return to the things themselves is to return to that world which precedes knowledge, of which knowledge always speaks, and in relation to which every scientific schematization is an abstract and derivative sign-language, as is geography in relation to the countryside in which we have learnt beforehand what a forest, a prairie or a river is. (Merleau-Ponty, 1962, p. ix)

Phenomenology is an interpretive research methodology, which is aimed at gaining a deeper understanding of the nature and meaning of everyday experience. Simply put, "phenomenology describes how one orients to lived experience" (van Manen, 1990, p. 4).

Phenomenological studies begin with a question about the meaning of participants' experiences of a phenomenon for which the researcher has a serious interest and commitment. In order to understand phenomenology, it is important to understand the philosophy that under girds it and how this philosophy translates into research methodology. This understanding is critical to applying this methodology in research design. Phenomenology has important applications to research in the field of human resource development as it helps explicate the essence of human experience.

Philosophical Foundations of Phenomenology

van Manen (1990) suggested that the distinction made by phenomenology between appearance and essence is what differentiates it from other qualitative research approaches such as ethnography, symbolic interactionism, and ethnomethodology. Polkinghorne (1989) provided support for this distinction in his discussion of phenomenological research methods, in that he proposed that phenomenology differs from other approaches due to its emphasis on the participants' experienced meaning rather than just on a description of their observed behaviors or actions. The differentiating assumption of phenomenology is that there is an essence or essences to shared experience. In defining phenomenology as a philosophical tradition, Husserl is described as having the basic philosophical assumption that "we can only know what we experience by attending to perceptions and meanings that awaken our conscious awareness" (Patton, 1990, p. 69). Phenomenologists focus on how human beings understand their experiences so as to make sense of the world. Basic to this philosophy is the belief that there is no separate (or objective) reality for people. According to van Manen (1990), the act of phenomenological research is an intentional act of bringing the world into being for us and in us.

Phenomenology, as founded by Edmund Husserl (1859-1938), emerged as an epistemological philosophy and was carried forward and refined by philosophers such as Martin Heidegger (1889-1976) and Maurice Merleau-Ponty (1908-1961). Tracing the terms 'phenomenology' and 'phenomenon' back to their Greek derivations, Heidegger (1962) defined a phenomenon as "that which shows itself," and more specifically, "that which shows itself in itself" (p. 51). Thus, in philosophical terms, phenomenology means "to let that which shows itself be seen," as Heidegger

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stated, "To the things themselves!" (p. 58). Therefore, phenomenology is the uncovering and showing of things as they truly are. According to Heidegger, phenomenology is the exhibition and explication of a phenomenon. Four major concepts of phenomenology in philosophical writings provide the foundation for phenomenology as a research methodology in the human sciences. These philosophical concepts are intentionality, lifeworld, intersubjectivity, and embodied consciousness.

Intentionality

As humans, we have consciousness and intentionality. Giorgi (1997) described intentionality, in Husserlian terms, as "the essential feature of consciousness," in that an act of consciousness or awareness "is always directed to an object that is not itself consciousness, although it could be, as in reflective acts" (p. 237). When an object presents itself to us, it presents itself as *something* and we see it as *something* and interpret it as *something*. Even if we see only parts of an object—such as the top of a table—the object presents itself as a table, and our consciousness sees it as the whole table. Husserl (1982) described the concept of intentionality:

> In my waking consciousness I find myself in this manner at all times, and without ever being able to alter the fact, in relation to the world which remains one and the same, though changing with respect to the composition of its contents. (p. 53)

The objects in the world present themselves to those in the world; humans in the world interpret them to be what they are, and even if we only see a part of the objects, as humans with intentionality, we intuit the wholeness of the entity. There is an innate "knowing of [the objects in the world]" (Husserl, 1982, p. 52) even with little attention paid to them and with little conceptual thinking of them. Husserl termed this innate knowing of something as "a clear intuiting," which can be described as a perceiving, or an operative experiencing of the objects or phenomena (p. 52). Therefore, intentionality is human consciousness or awareness directed outward into the world and the resulting innate perception of the whole of objects in the world.

The philosophical concept of intentionality is important to phenomenology as a research methodology since the purpose of phenomenological research is to understand how humans experience and perceive certain objects or phenomena in the world. The concept of intentionality shares a close relationship with the lifeworld because intentionality is directed outward to objects, persons, and phenomena in the world. The philosophical concept of the lifeworld is described below.

The Lifeworld

In his attempt to develop a philosophy of science that was rigorous but also as close as possible to the natural world of humans, Husserl (1982) made important contributions to phenomenology with his concept of natural attitude, which was later designated as 'the lifeworld.' The natural world exists around us all the time; the world of the natural attitude includes the "I and My Surrounding World" (Husserl, 1982, p. 51).

> It is continually "on hand" for me and I myself am a member of it . . . this world is there for me not only as a world of mere things, but also with the same immediacy as a *world of objects with values, a world of goods, a practical world* [emphasis in original]. (Husserl, 1982, p. 53)

The natural world exists prior to our knowledge of it and *'prior to any 'theory'"* (Husserl, 1982, p. 56). As humans, we are always in the natural world and in the natural attitude; in our consciousness, we approach things with intentionality. To describe his concept of natural attitude, Husserl (1982) stated,

> I am conscious of a world endlessly spread out in space, endlessly becoming and having endlessly become in time. I am conscious of it: [T]hat signifies above all, that intuitively I find it immediately, that I experience it. By my seeing, touching, hearing, and so forth, and in the different modes of sensuous perception, corporeal physical things with some spatial distribution or other are *simply there for me, "on hand"* [emphasis in original] in the literal and figurative sense whether or not I am particularly heedful of them and busied with them in my considering, thinking, feeling, or willing. Animate beings too—human beings, let us say—are immediately there for me. . . . They are also present as actualities in my field of intuition even when I do not heed them. (p. 51)

In later writings, Husserl used the term 'lifeworld' or *'Lebensvelt'* to acknowledge the natural world. Gadamer (1989) explicitly described the lifeworld as,

> the world in which we are immersed in the natural attitude that never becomes an object as such for us, but that represents the pregiven basis of all experience. This world horizon is a presupposition of all science as well and, therefore, more fundamental. (pp. 246-247)

The lifeworld is already there for us; it exists *prior to* science, *prior to* theory, *prior to* reflection, and *prior to* our attitudes about it. The lifeworld exists *prior to* our conception of it and our ideas about it.

The lifeworld, then, is the place where humans are in the world or with the world, and therefore, it is the starting point for research in the human sciences. The lifeworld is the world as it is "lived by the person" not an entity separate and independent of the person (Valle, King, & Halling, 1989, p. 9). Thus, in order to build on existing knowledge and create new knowledge in the human sciences, researchers must go to the lifeworld and study the way in which humans experience phenomena within the lifeworld in their natural attitude. This is the purpose of phenomenology as a research methodology.

Intersubjectivity

Interrelated with the concepts of intentionality and the lifeworld is the concept of intersubjectivity, which describes how we are in the world. Heidegger (1962), like Husserl (1982), conceived of the world as already existing: "The 'world' has already been 'presupposed', and indeed in various ways" (p. 92). Yet, Heidegger (1962) took Husserl's concept of consciousness one step further: He contended that human consciousness, or beingness, comes from our relationship with the world. Therefore, consciousness is a situated consciousness that results from our relationship with the world and others in the world. A "being world" is a "with-world" or *"Mitvelt"* (Heidegger, 1962, p. 155). The lifeworld is an intersubjective world where the subject and others are together in a relationship in the world, even if the other is not present. As conceptualized by Heidegger (1962),

> Being-with is an existential characteristic of Dasein [our being in the world] even when factically [sic] no other is present-at-hand or perceived. Even Dasein's Being-alone is Being-with in the world. . . . Being-alone is a deficient mode of Being-with; its very possibility is the proof of this. (pp. 156-157)

We are always in an intersubjective relationship with the world. In interviews for phenomenological research, intersubjectivity is the act of the researcher being with and developing a trusting relationship with the interviewee as s/he describes her/his experience with the phenomenon being investigated. Dahlberg and Drew (1997) referred to the intersubjective coming together of researcher and interviewee as the 'encounter,' because the researcher not only gives attention to information the interviewee provides about the experience, but is also cognizant of the interviewee as an individual and strives to make interaction with the interviewee both positive and equitable.

Embodied Consciousness

Merleau-Ponty (1962) took the three concepts of consciousness, the lifeworld, and intersubjectivity further when he contended that they are experienced through the body. He defined this being-with in the lifeworld as intercorpeality: "Consciousness is being-towards-the-thing through the intermediary of the body" (pp. 138-139). We are in the lifeworld, or the 'lived world,' as bodies, and we live the world through the body: "The body is our general medium for having a world" (p. 146). The body is not separate from the self, nor does it exist "*in*" space, or "*in*" time; rather, it exists as part of the self, and "it *inhabits* space and time" (Merleau-Ponty, 1962, p. 139). The body is our medium for existing in the world; "the body expresses existence at every moment," and "existence realizes itself in the body" (p. 166). Husserl (1970) also referred to the subjective body when he stated, "it is in this world that we ourselves live, in accord with our bodily . . . personal way of being" (p. 50).

Thus, when two individuals come together in the world, they are embodied consciousnesses coming together; they bring their own spatiality and temporality, which can have an impact on both individuals' bodies and consciousnesses. For example, if the researcher is disturbed or surprised by something an interviewee says, and the interviewee notices this change in the researcher through the researcher's nonverbal cues, the interviewee might stop discussing the particular topic. The interviewee might begin to say what s/he thinks the researcher wants to hear rather than continue the interview in a way that allows the interviewee to personally experience the phenomenon discussed. Therefore, the phenomenological researcher must be aware of the subjective body; s/he must understand how the body can affect his or her consciousness and the consciousness of the interviewee, and how the coming together of the bodies can impact the consciousness of those involved.

Phenomenology as a Research Methodology

Husserl (1970), in an attempt to define a rigorous science, explicated that the interpretive view is most appropriate for human science as it takes place in the lifeworld. A research methodology such as phenomenology, which does not work in pure forms or idealities, is needed to examine how bodies or experiences actually show themselves, not to extrapolate them to how they have shown themselves in some ideal form. We must go back to Heidegger's

(1962) maxim, "To the things themselves!" and not to the ideal form of the things themselves, because the ideal form does not represent how they actually are as phenomena or human experiences in the lifeworld (p. 58). Gadamer (1989) also proclaimed the lifeworld as the starting point of science:

> The world in which we are immersed in the natural attitude that never becomes an object as such for us, but that represents the pregiven basis of all experience. This world horizon is a presupposition of all science as well and is, therefore, more fundamental. (p. 247)

Giorgi (1997) agreed when he stated, "From a phenomenological viewpoint, the life-world is pre-theoretical and prescientific and not yet theoretical or scientific in itself. It is the foundation of all sciences" (p. 248). van Manen (1990) described the research methodology of phenomenology as "the study of lived experience" or "the study of the lifeworld" (p. 9). Phenomenological inquiry seeks to describe the deep essence of life experiences and the meanings derived from those experiences.

Phenomenological researchers are interested in understanding an experience for its own sake (Polkinghorne, 1989). The desired outcome of phenomenological inquiry is to utilize knowledge from the essence of the experience; to gain deeper understanding of the experience and become more aware of our thoughts and actions as they relate to the experience; and to seek deeper understanding in ourselves, rather than to search for universal laws, as in the positivistic research paradigm (Hultgren, 1989). A particularly compelling description of the status of phenomenology is expressed by van Manen (1990), who identified that this methodology is both new and old. It is new in the sense that this type of human science may be similar to a breakthrough or liberation from present concepts of scholarship based on theoretical and technological thought. It is old in that, over the ages, human beings have created artistic, philosophical, communal, mimetic and poetic languages for the purpose of connecting themselves to their lived experience.

Giorgi (1997) transformed the philosophical concepts of phenomenology into methodological concepts of phenomenological research. The following section explicates three major concepts within the phenomenological research methodology proposed by Giorgi: The essence of the experience, description, and phenomenological reduction.

The Essence of the Experience

In phenomenological research, we seek to find the essence of the experience of a phenomenon. The basic assumption underlying phenomenology as a research methodology is that there are core meanings or essences to shared experience (Patton, 1990). Therefore, the goal of the phenomenological researcher is to uncover these essences or underlying themes of meaning of shared experience.

Essences are the core invariates of the experience, which, if non-existent, would render the experience something else. "These essences are the core meanings mutually understood through phenomenon commonly experienced . . . for example the essences of loneliness, the essence of being a mother, or the essence of being a participant in a particular program" (Patton, 1990, p. 70). van Manen (1990) described essence as "the essential nature of a thing, the true being of a thing . . . that what makes a thing what is rather than its being or becoming something else" (p. 176). Giorgi (1997) described the essence as "the most invariant meaning for a context," "a fundamental meaning without which the phenomenon could not present itself as it is," and "a constant identity that holds together and limits the variations that a phenomenon can undergo" (p. 242). For Husserl (1970),

> It then becomes evident that a unity runs through this multiplicity of successive figures, that in such free variations or an original image, e.g. of a thing, an *invariant* is necessarily retained as the *necessary general form*, without which an object such as this thing, as an example of its kind, would not be thinkable at all. (p. 341)

Description in Phenomenology

Phenomenological research utilizes thick, rich description of the experience and the meanings of the experience to reveal the essences of the experience. Because the purpose of phenomenological research is to understand better the lifeworld and the natural attitude, participants—who are in the natural attitude—provide descriptions as they talk about their specific experiences of the phenomenon under study (Giorgi, 1997). The interviewees, while in the natural attitude, provide concrete and detailed descriptions of their experiences with the phenomenon under study, and these descriptions become the text that the researcher utilizes to uncover the essences of that phenomenon.

> Descriptions of such experience should be instantly recognizable, expanding and enriching the store of knowledge about the lifeworld. The end result of phenomenological description is that its generalizability, its

universal nature, connects us with others, ultimately validating our own experience. (Dahlberg & Drew, 1997, p. 310)

At this point, it is important to discuss the differences between description and interpretation. The purpose of phenomenological research is to uncover the essence of the phenomenon through excerpts of descriptions of the phenomenon from the research participants. Again, the focus is on description, which differs from interpretation. It must be noted, however, that researchers can never totally step out of their own implicit pre-understandings and interpretations of the phenomenon. Therefore, "pure description and knowledge (i.e., accounts and explanations of human experience free of the researcher's own perspective and involvement in the lifeworld) are impossible" (Dahlberg & Drew, 1997, p. 315). As Husserl (1982) asserted, humans have intentionality and will see something as something when it presents itself; Gadamer (1989) added that it would be interpreted within our own language, tradition, and historicity.

Therefore, the researcher cannot totally remove her/his pre-understandings and interpretations from the research. However, the researcher should bracket these pre-understandings and focus on description of the experience rather than interpretation, which would move the research into hermeneutics and hermeneutic phenomenology. "But for 'pure' phenomenology, the task is to describe the intentional objects of consciousness from within the perspective of the phenomenological reduction" (Giorgi, 1997, p. 241). Again, the key task of the researcher who conducts phenomenological research is *description* of the experience from the perspective of the participants and in their own voices, rather than *interpretation* of those experiences.

Phenomenological Reduction

Phenomenological researchers must adopt a scientific rather than a natural attitude, and be in the phenomenological reduction when conducting lifeworld research. "The phenomenological reduction is a methodological device invented by Husserl in order to help make research findings more precise" (Giorgi, 1997, p. 239). Contrary to the natural attitude of taking existing things for granted, which constantly occurs in the lifeworld, phenomenological reduction, as explicated by Giorgi, has the researcher move out the natural attitude and "directs one to step back and describe and examine them [things and events]" (p. 239). The researcher continually must be aware of the phenomenon under investigation. The phenomenological reduction requires that the researcher bracket previous knowledge of the phenomenon in order to allow the phenomenon to reveal itself in the current situation.

A primary assumption that underlies interpretive research methodologies such as phenomenology is that humans seek meaning from their experiences and from the experiences of others. That meaning is interpreted through language, and thus leads to a reality that is socially constructed, rather than a reality that exists outside the meanings that humans attribute to it (Hultgren, 1989; Jax, 1984; van Manen, 1990). Interpretive research methodology seeks deep understanding of experience, and views knowledge not as existing independently of the knower, but as "a matter of agreement within a socially and historically bounded context" (Smith, 1983, p. 8). The relationship between the researcher and research participant is seen as a subject-subject interaction in which values and facts reside within each individual and cannot be separated (Smith, 1983). Phenomenological research methods, therefore, attempt to uncover the underlying essences and meanings of experience in order to arrive at a deeper, intersubjective understanding of the phenomenon under study.

The Research Process: Application of the Lifeworld Concept

Dalhberg and Drew's (1997) description of phenomenological research methodology is based on the application of the lifeworld concept. These authors discussed a research methodology, based on Husserl's philosophy of lifeworld, in which the concept of openness is central. Openness is described as a "perspective free of unexamined assumptions" (Dalhberg & Drew, 1997, p. 305) and as something that phenomenologists continually strive for but recognize as impossible to fully realize, as researchers are always part of the world that they wish to investigate. Objectivity means, however, that investigators must examine their own involvement with and knowledge of the phenomenon. Openness therefore requires researchers to have the capacity to be surprised and to remain open to the world as it presents itself. Openness is described as being open-minded and open-hearted, in that investigators need to be receptive, perceptive, and sensitive to what they are receiving as well as being able to engage with others without compromising the objectivity of the research. Openness is also described as fostering the ability to generate true research questions and requires the ability to be reflective and to be able to bracket one's preunderstanding in a way that allows the researcher to seek insight (Dahlberg & Drew, 1997).

Other supporting concepts critical to the lifeworld research paradigm are 'encounter', which has as its goal the development of knowledge and includes an ethical concern for people; 'immediacy', which relates to engagement

with the participant in a way that establishes trust, allowing for the possibility of disclosure; 'uniqueness', which recognizes that the understanding of individuals takes precedence over their position as representatives of a larger group; and 'meaning', which is recognized as contextual and expanding. As further noted by Dahlberg and Drew (1997), the lifeworld, recognized by Husserl as the foundation of science, implies an epistemology that holds the question of meaning as primary.

In phenomenology as a research methodology, the researcher plays a vital role in uncovering the essences or true being of the particular experience under study. Rather than remaining an uninvolved observer as in positivistic research, the phenomenological researcher also exists in the lifeworld of the phenomenon under study. The phenomenologist investigates the experience, seeking an authentic account from the perspective of the participant based on a dialog between researcher and participant. The task of the phenomenological researcher is to develop methods that are particularly suited to the experience they wish to study (Polkinghorne, 1989). According to van Manen (1990), personal experience, interviewing, observing, biographies, experiential descriptions obtained in literature or from others, diaries and journals, and art are all possible means of gathering lived experience data. Phenomenology focuses on the structure and meaning of the experience of a particular phenomenon with the purpose of studying how people experience the world in order to discover the essence of the phenomenon (Patton, 1990; van Manen, 1990). As defined by Dalhberg and Drew (1997), phenomenological research is the "description and elucidation of the everyday world in a way that expands our understanding of human experience" (p. 305).

Phenomenology aims at being presuppositionless, in that the researcher attempts to gain an awareness of his or her own experiences so as to be able to set them aside (bracketing) in order to best be able to understand the experience from the participants' perspective. The researcher seeks to uncover themes that express the meaning of the experience for the participants. In order to get at the core meanings, this process requires the researcher to reflectively analyze the structural or thematic aspects of these experiences to clarify and make explicit the meaning of the phenomenon (van Manen, 1990). Many sources can be used to assist in explicating themes, including the lived experience of the participants and various types of literature such as research, poetry, fiction, and other forms of art. One can also gain clues to the meaning of a theme by being attentive to the etymological origin of words or through searching of idiomatic phrases (van Manen, 1990). Semiotics is the practical writing or linguistic approach to phenomenology and reflects the research activity of describing the phenomenon through writing and rewriting of the themes. Creating and writing a carefully argued phenomenological text is the ultimate object of the research process and is the process by which researchers and participants sustain a conversational relationship. In phenomenological research, the researcher is not a detached observer but, instead, maintains a strong and oriented relationship (van Manen, 1990).

Applications of Phenomenology to Human Resource Development

Phenomenological inquiry is a search for new possibilities and an avenue by which people can gain an understanding and awareness of different ways of thinking and acting, resulting in better decision-making (Hultgren, 1989). Hultgren described Langan's concept of appropriative undertaking where enhanced thought and understanding leads people to take a stand on and responsibility for their situation and their being (as cited in Hultgren, 1989). Human resource development scholars are continually striving for insight into the human experience; this type of research can provide a level of understanding that complements and strengthens current knowledge in this arena.

van Manen (1990) identified three ways that this methodology might be considered a philosophy of action. First, he suggested that acting flows from deepened thought. As one becomes more aware of aspects of human life that were previously taken for granted, this awareness is likely to result in action being taken in social situations where there is an imperative to act. He noted that while no specific political agenda is prescribed for any particular group, the thinking that occurs as a result of phenomenology is apt to lead individuals to engage in a political agenda, either personally or collectively. Second, van Manen (1990) viewed the phenomenological process of inquiry as a means to support ongoing involvement in everyday life and practice in a way that is "virtually absent in the increasingly bureaucratized and technological spheres of pedagogic life" (p. 154). Third, he expressed how phenomenological reflection relates to personal engagement in terms of needing to understand how others perceive the world and how this understanding changes the way individuals act toward others. The relevance to human resource development is apparent in that knowledge of human experience in a variety of contexts and personal self-awareness is crucial to effective HRD practice.

van Manen (1990) also discussed ways that the relationship between research and life (or between thoughtfulness and tact) could be strengthened. These include reinstating lived experience as a basis for practical action and discovering new sources of information for research; moving toward a lived sense of principled

knowledge, in that investigators continually question the guiding principles of what is done in research; considering research/writing as thoughtful learning and as a way to become more aware of meaning and significance; and recognizing that research is a pedagogic way of life and as such, the two are inextricably linked. This approach can help HRD researchers remain open as they attempt to understand the complex nature of human experience in organizations.

Polkinghorne (1989) made the case that phenomenological inquiry can be used to impact changes in public policy and, by extension, quality of life. First, the research can be used to help people who are experiencing a phenomenon to understand and come to terms with their experiences. Participants can also find the process of being involved in the research to be beneficial, possibly in terms of finding a community of people who have similar experiences. Second, individuals who work with people who have experienced a particular life situation can gain insight into the experiences of these individuals and can be more responsive and sensitive due to their increased understanding. Third, individuals who are part of a power structure can gain information as to what people experiencing the phenomena believe should have occurred and this information might result in some change being initiated. Lastly, phenomenological research can provide insights into what policies should be changed and can increase the motivation of those in power to do so, based on the impact of understanding the personal meaning of the experience to those experiencing it. In considering the application to human resource development, it is clear that phenomenology offers the possibility of insights that can result in enhancements to practice. There are critical issues in HRD practice that merit the depth of awareness and reflection afforded by phenomenological research, in that it provides a level of insight that might not be gained through other research approaches. The thinking that occurs as a result of phenomenology informs one's ongoing involvement in everyday life and practice and may lead to action, either individually or organizationally.

As discussed, phenomenological research provides in-depth understanding, a higher capacity for discernment, and enables the researcher to be more situationally sensitive (van Manen, 1990). Additionally, phenomenological reflection can be viewed as key to in-depth, thoughtful learning. "More fundamental than skill learning, it is thoughtful learning which is at the heart of pedagogic life" (van Manen, 1990, p. 157). van Manen's (1990) discussion of pedagogic competence is at the heart of this issue -- how does an investigator get at an understanding of what is a 'leader', a 'follower,' a 'mentor,' and other constructs important to human resource development. Phenomenological research questions integral to HRD practice are unlimited and can include those that attempt to explicate any human experience in organizations for which the investigator has a serious interest and commitment. Arenas in which phenomenological research would be well suited include cross-cultural experiences, leadership, change, organization development, or any other area in which a HRD investigator might want to gain a deeper understanding of the meaning of participants' experiences of a particular phenomenon. Essentially, phenomenological research is an effective methodology for human resource development scholars who wish to enhance their understanding of human experience in organizations, and is especially applicable when dealing with issues that are both complex and unique.

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How Engineers Learn in the Face of Organizational Change

Robert Reardon
University of Georgia

In this qualitative study, nine engineers were asked to describe how they learned to perform their altered roles after a major reorganization. A thematic analysis of the transcripts revealed that most of the learning was informal and that it fell into three categories. The participants revealed that the organizational structure facilitated two categories of learning and made one category more difficult. This study supports current theory related to informal learning in the workplace and expands theory by providing a new conceptualization of informal learning and the impact of the organizational structure on informal learning. HRD professionals may be able to apply these concepts to improve informal learning in their workplace.

Keywords: Organizational Change, Informal Learning, Qualitative

The industrial workplace is a sea of constant change. Changes in business situations mandate process innovations to remain competitive or meet customer requirements. Engineers play unique roles in this environment. Management cites engineers working in industry as being key to innovation in industry (Hart, 2001). Since 1980, there has been a steady shift in research and development from government to industry (Hoyt & Gerloff, 2000). Creative skills have become critical to engineers working in industry. Yet, according to Hoyt and Gerloff (2000), pressure has increased on these engineers to be sensitive to the needs of the business – the "bottom line" (p. 275). Technological innovation gives the engineer new tools, new capabilities, and new responsibilities. Engineers must learn, then relearn, how to perform their roles in an environment that is more and more dependent on his or her performance for success. Often, learning roles occurs through informal or incidental learning. It is important for organizations to understand how this learning occurs, how this learning can be categorized, and what can be done to encourage informal or incidental learning.

Theoretical Framework

Much has been written about workplace learning. Schön (1983) asserts that the experienced professional needs more than technical training. According to Schön, the experienced professional "reflects in action." In this model of learning, the professional reflects on his or her actions in day-to-day practice to build a complex set of skills and tacit knowledge. This reflection does not come without a price. Hoyt and Gerloff (2000) identify technical obsolescence as a key antecedent to stress and burnout for engineers in industry. Engineers continually strive to learn new innovations to perform effectively in industry.

Technical skills are not the only skills needed by engineers. Senge (1990), for example, asserts that employees need to think systemically. Today in industry, engineers must be aware of the business needs as well as being technically competent (Hallam, 2000).

Some authors assert that much of workplace learning takes place outside of formal settings (Marsick & Volpe, 1999; Marsick & Watkins, 2001). Informal learning occurs among workers as they seek solutions to problems. Incidental learning takes place constantly, and the learner may or may not be aware of the process (Marsick & Watkins, 2001).

These same authors have specified six characteristics of informal learning. It is integrated with daily routines. It is triggered by an external jolt. It is not highly conscious. It is haphazard and influenced by chance. It is an inductive process of reflection and action. It is linked to the learning of others.

Marsick and Watkins have advocated organizational designs that encourage informal learning (Marsick & Watkins, 1999; Watkins & Marsick, 1994). These authors identify three ways to enhance informal and incidental learning (Marsick & Watkins, 2001). First, critical reflection in the workplace is key to allow informal learning. Second, the organization should stimulate learner proactivity to identify and learn new skills. Third, the organization should encourage creativity in the workplace.

Past research has identified disruptions to informal learning after corporate downsizing (Volpe, 1999). According to Volpe, the streamlined organizations changed the nature of work. At the same time, according to

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Volpe, there was a loss of formal and informal mechanisms for learning how to perform in the new environment. The people that formerly were resources were either gone or shifted into new positions.

Research Questions

Informal learning is unstructured. Authors have identified some general ways that informal learning can be enhanced. Perhaps it is possible to enhance informal and incidental learning by identifying common categories of learning and how professionals actually learn. The purpose of this inductive study was to develop a rich understanding of how experienced engineers learned following an organizational change. Specifically, the study asked the following research questions. What categories describe the learning for engineers in this industrial setting? In each of these categories, how did these engineers learn to perform their role after the reorganization?

Methodology

This was an inductive qualitative study to develop a rich understanding of the learning that took place at one manufacturing facility after a major reorganization. The study was based on interviews of nine experienced engineers. During the interviews they were asked to reflect on how they learned to perform their jobs after a major reorganization. The researcher conducted a thematic analysis of the transcribed interviews.

Setting

Delphi Chemicals (a pseudonym) is a plastics manufacturing facility located in the southeastern United States. Since its construction in 1984 it has seen numerous changes. The site has had four owners, seen four workforce reductions, and received five major expansions. Typically, there were about 200-250 employees on the site. At the time of the reorganization the site employed 28 engineers. Engineers filled a number of roles at Delphi, which include management, technical support, project support, and production supervision. Most of the engineers were between 40 and 50 years old, were white males, and had more than fifteen years experience in the plastics industry.

From 1984 until 1994, the site organization was aligned with job functions. Engineering support was split among three departments. The Production Department had engineers to assist with operation of the chemical processes. The Maintenance Department had engineers to help with issues like preventive maintenance and repair of equipment. The Technical Department engineers ran projects, designed new systems, wrote environmental permits, and handled other strategic engineering needs.

In 1994 the management at Delphi decided that the existing organization needed to be restructured. They felt that the existing organization had too many layers, and that it was slow to respond to customer and market demands. One of the stated goals was to provide a natural organization focused on meeting the production needs of the site.

The resultant organization established two production teams. Each of the production teams had responsibility for one of the major product categories at the site. These teams had production and reliability engineers as members. For just over a year, a third, core team (Technical Services) provided engineering support for process, project, and control engineering applications. After the year, management of the site felt that this core team was not product-focused, so in 1996 the Technical Services team was eliminated and all engineering support was rolled to the two production teams.

The Interviews

Ten engineers from the time of the reorganization still work at Delphi or live in the area. Nine of these were interviewed between June 2000 and June 2001. One engineer declined to participate in the study. All of the participants were white, male and between 43 and 51 years old. One of the participants had been laid off in 1998. One participant was on the management team that planned the restructuring and is still on the site management team. Eight of the interviews were conducted at the site by the researcher. One of the participants was the researcher. In that case, a third party conducted the interview using written questions.

The interview questions focused on how the engineers learned to perform their roles after the reorganization. There were also additional questions related to learning after other types of change. For example, one of the questions asked "How do you learn new technology when it is introduced to the workplace?" The audio tapes of the interviews were transcribed following each interview, and a preliminary analysis was done on the interview to identify emerging themes. After all the interviews were completed, the interviews were analyzed to identify themes

related to learning. Each theme was coded with a brief description and the supporting part of the interview was transferred into a database grouped by the descriptions.

After the themes were developed, the researcher reviewed the identified themes with the participants. Each of the participants agreed with the identified themes.

Results and Findings

Analysis of the interview themes found that there were three categories of workplace learning for these engineers. In addition, these themes indicated some generalizations that could be made about learning at Delphi.

Three Categories of Informal Learning for Engineers in Industry

Professional practice has been described as a complex artistry (Cervero, 1988; Schön, 1983). The skills needed by a competent engineer in manufacturing are not limited to the skills taught in preservice engineering curricula. Thematic analysis of the interviews revealed three general categories of learning for the engineers at Delphi Chemicals. These categories were learning new workflows, developing engineering expertise, and learning about the process.

Learning New Workflows. At Delphi, engineers needed to learn how to get things done. Almost every task required inputs and outputs. These engineers needed to follow procedures, accept new work assignments, plan their time, communicate, coordinate activities, and access additional resources. After the reorganization, established workflows were interrupted or disrupted. Most of the participants identified this as a major area of learning.

Each of the production teams had one specialist of each type. Each type of specialist had a different set of job functions that depended on his or her training and place on the team. Often, one specialist on each team was expected to perform tasks that were not done by anyone else on the team.

The interviews indicated two distinct types of learning for workflows. The first type occurred when the task was performed for the very first time in the new organization. The engineer could not rely on procedures, experience, or informal learning as a guide. The participants indicated that one of them had to forge ahead through the new organization. It was not always a smooth process. Usually, these "innovators" (Rogers, 1995) were experienced engineers who drew on analogies from past situations to apply to the current situation. In other words, they reflected in action. These engineers then became the educators and opinion makers for the other engineers at Delphi.

> *Ben, a project engineer.*
> "We learned most of that by doing, just by trying to execute and winding up with somebody saying you have to do this or you have to do that, and just coming as new, new knowledge at that time."

The second type of workflow learning took place after the "dust had settled" and workflows were established. Often there were formal procedures documenting the steps a specialist was to follow to do tasks in his or her area of expertise. The participants indicated that they rely on informal learning to discover how to get work done. They would ask a peer for guidance on how to accomplish the task. The only other engineer of that same specialty was the analogous specialist on the other product team. So, this informal learning was often peer-to-peer, crossing team boundaries.

> *Tony, a project engineer.*
> "Word of mouth, 'cause there is no serious effort to educate people about the, uh, the advantages, or disadvantages, of programs, or processes, or procedures that we use with our, uh, electronic solutions, so to speak. It's word of mouth that I find out from you, or somebody else, something they do that works. Or I ask a question, "how the heck do you do this?" And somebody shows me. That's about the only way that we do that..."

Developing Engineering Expertise. The knowledge required by an engineer at Delphi frequently changed because of changes in technology, government regulations, and business needs. Therefore, each engineer always had

to keep his or her skills up to date. The new, streamlined organization made it difficult to seek knowledge within the site. There were not very many engineers, there was little or no redundancy of roles, and everyone was very busy.

> *Lance, reliability engineer.*
> "...so my conduit over time became engaging in the plastics industry and engaging people that had specific knowledge of pieces and then giving them my perspective on the target and just engaging their expertise. So rather than go to expertise developed from within, I had to go to experts I became, you know, networked to outside to get that conduit..."

The engineers in this study proactively went outside the company to acquire new knowledge regarding engineering expertise. They did this by taking classes, talking to vendors, and networking with other engineers in industry.

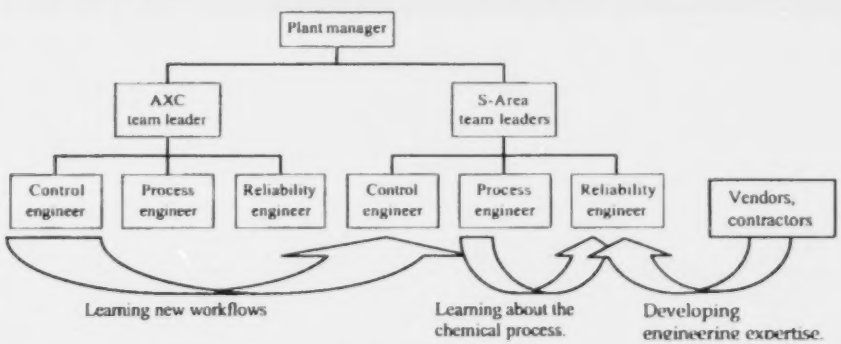
Learning About the Chemical Process. When the engineers at Delphi talked about "process" they were referring to the chemical process for which they were responsible. Each of the production teams was responsible for several chemical processes. Each processes had a multitude of distinctive characteristics. Employees working with a process were required to learn these characteristics.

Management stated that one of the intents of the reorganization was to improve the site's focus on these processes. Most of the engineers in this study identified this as a major success of the new organization. For example, although there is only one control engineer on each team, he or she could ask questions of his or her peers regarding the process. This encouraged all the engineers on a team to learn about the team's specific processes.

> *Lance.*
> "You know what the best part of the integration was working side by side with my peers that had other viewpoints and had other perspectives that could cover my blind spots. I may not have been good at certain things early on. I wasn't good at the process side for example."

These three classifications, learning about the chemical process, learning new workflow and developing engineering expertise, were identified during the interviews. Figure 1 demonstrates three characteristic flows of informal learning in a simplified organizational chart.

Figure 1. Simplified organization chart showing channels of informal learning.



As Figure 1 illustrates, the first category of informal learning, learning new workflows, usually took place between specialists, and might or might not cross team boundaries. For example, the control engineer on one team might explain an aspect of a computer program to the control engineer on the other team. The second category of learning, learning about the chemical process, usually took place between peers within a team. Figure 1 also illustrates the process engineer on one team explaining the process to the reliability engineer on the same team. The third learning category, developing engineering expertise, depended on the specialist seeking resources outside of

the plant boundaries. In addition, Figure 1 illustrates this by showing a vendor supplying information to the reliability engineer on one team.

General Characteristics about the Informal Learning

The interviews revealed four general characteristics about informal learning at Delphi that apply across the three categories of learning.

Learning was informal and took place over time. Engineers learned how to do their jobs after the reorganization in informal ways. This took place over a period of weeks or months. Typically these engineers learned from each other when they had a need. They sought out a peer skilled in the task at hand and asked for assistance. This was not the case for developing engineering expertise. The new organization did not support informal learning in this category, so the engineers had to seek new knowledge outside Delphi. They did this with informal networking or formal classes.

> *Ralph, process engineer.*
> "You know, I guess you learn a lot in everything, in every little type of work you do, you learn a lot from it, you know."
> *Bill, team leader.*
> "I think it was supposed to evolve over time and it was really supposed to happen at the team leader level and kind of in each department. I think we did do some of that and some of it seemed kind of like common sense."

There was no learning up or down. According to the participants, almost no learning moved vertically through the organization. It is almost all peer-to-peer. No one cited his or her supervisor as a source of learning.

> *Ben.*
> "So I think we tend to help one another on sort of a lateral basis, or even people that might work for us. As far as trying to push for a big conceptual education, I don't...I think people kind of shy away from that"

Engineers Learned Only What They Needed to Do Their Job. Engineers seek to learn what is needed to do their job: there is no time to learn things completely. This is typical of the adult learner, who displays a "readiness to learn" in order to "cope effectively with their real-life situations" (Knowles, 1990, p. 60).

> *Ralph.*
> "You only need to know the things that apply to our jobs and I think that would help you, just knowing, minimizing the knowledge you have to know to do your job instead of trying to learn things that, really, you'll never use. Like sometimes you get taught things in school you'll never use. But on your job, it's a waste of time"

The Structure of the New organization made it very Difficult for Young, New Engineers to Learn. People in the survey noted that it is very difficult for inexperienced engineers to survive in this environment. The experienced engineers felt that their workload makes it difficult to take the time to mentor young engineers. In addition, there is not a deep pool of resources on which to draw. Each team has a set of specialists, and those specialists are expected to perform as self-directed, competent individuals. So it is difficult for new engineers to learn their roles in this environment.

Lance.

L: "Developing new personnel is very, very difficult. Very, very challenging environment and we do not do a good job of developing people."

I: "Because of..."

L: "Because we have so much going on and we have...it's so quick, I mean, you truly learn by living through things."

Lack of Steps to Enhance Informal Learning. The participants in this study were able to describe numerous examples of informal learning. This agrees with the description of informal learning in Marsick and Watkins (2001). One of the criteria of informal learning is that it is often "triggered by an external joint" (p.28).

In the same paper, Marsick and Watkins describe three ways to enhance learning: critical reflection of the skills needed to perform, proactivity by the learner to acquire needed learning, and creativity to explore new options. The participants in the study indicated that they were able to create new workflows and explore new performance options. They were also proactive in learning that which they needed. This was not, however, consciously encouraged by the organization, but may have been an artifact of the experience of the professionals in the study. There was no evidence of critical reflection discussed during the interviews.

Implications

The engineers at Delphi relied on their individual experiences as professionals and an informal network of peers and external experts to learn after the reorganization.

Implications for Practice

This study demonstrates that organizational structures can shape informal learning. The management at Delphi appeared to have been aware of this as they sought to build an organization that would better support the chemical processes. It is important for HRD professionals to keep this in mind as their organizations are redesigned to achieve goals such as reorganization, downsizing, acquisition, or expansion.

The engineers in this study relied on experience and tacit knowledge to build new networks for informal learning. Failure of new hires to succeed in this environment dramatically highlights the value of experience in this environment. The failures and successes of informal learning in this study illuminate areas to which HRD professionals should attend when dealing with engineers in an industrial setting. First, they should identify the categories of learning that engineers need to perform their roles. Second, the HRD professionals should identify channels for this learning to occur. For example, in the Delphi study, there were no informal channels to develop engineering expertise after the reorganization. Formal training opportunities are one solution for this.

HRD professionals should work with engineering professionals to enhance informal learning. The recommendations of Marsick and Watkins (2001) would be a good starting place. Engineers should be taught to reflect critically on their learning needs in their work environment. They should be encouraged to proactively acquire the knowledge that they need (either informally or formally). Discussions with their managers should include learning and development needs. Collaboration and cooperation among peers should be encouraged to stimulate informal learning.

Implications for Research

This was a small study of a small facility over a short period of time. The participants represent a small demographic group (white, male engineers between forty and fifty years old). Further research should attempt to categorize informal learning in other settings and with participants from a more diverse background.

This study suggests that organizations and resources can be aligned to maximize informal learning. Research should be done to determine if this is true. Ideally, an experimental design would be best. It is unlikely to expect a company to reorganize to satisfy research goals. An alternative study would be to work with a company that is planning reorganization. The researcher should try to predict categories and flows of informal learning in the new environment. Then the researcher should monitor the new organization to determine if the channels of informal learning develop as expected.

How this Research Contributes to New Knowledge in HRD

This study contributes to knowledge in HRD in two ways. Its supports existing concepts of informal learning and it expands on that concept by demonstrating that informal learning can be differentiated into different categories.

Support of Existing Theories Related to Informal and Incidental Learning.

The learning described by the participants agreed well with the characteristics of informal learning proposed by Marsick and Watkins (2001, 1999). It occurred in the midst of the normal workday. It was linked to the learning of others. Often, it was not highly conscious. Since it took place as needed, it was influenced by chance. It was definitely triggered by the reorganization. The participants noted that it was sometimes a case of reflection in action.

This Research Suggests New Structures for Considering Informal Learning.

Workplace learning can be categorized. Prior research on informal learning did not seek to categorize types of learning. In this study the participants identified learning new workflows, developing engineering expertise, and learning the chemical processes.

In practice, this study suggests that organizational structures and resources can be designed to support or enhance a particular category of learning. At Delphi, the management wanted to enhance the support of production goals. According to the participants in the study, the modified structure made it much easier for the engineers to learn about the chemical processes for which they were responsible. The same participants reported that the modified organization made it harder for these engineers to continue to develop their engineering expertise.

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Appendix: Interview Guide

Today, I am interesting in hearing how you adjust to change in the workplace. Specifically, I would like to hear about your perception of the reorganization of the plant in 1996, how it affected your job, how you responded to it..

- Tell me about how the reorganization affected you.

- How did you learn to do your job after the change? Was there formal training or education? What other informal ways did you learn?
- Were there problems with adapting to new change? Were you able to solve them? How?
- What could have been done to make the change "better?"
- Did the company support your adaptation? Tell me how.
- Tell me a little of your background.
- How long have you worked as an engineer?
- What is your background?

I want to shift gears and ask you a couple of questions about new technology. I will be researching how people adapt to new technology, and your answers will help guide me as I start this research.

- Describe a time when you had to start using a "new technology." How did you learn to work with it?
- What has been the best way for you to learn new technologies"
- What should the company do when it rolls out new technologies? (classroom training, online help, mentoring, hot lines)

How Lesbians Have Learned to Negotiate the Heterosexism of Corporate America

Julie Gedro
BellSouth Telecommunications, Inc.

Ronald M. Cervero
Juanita Johnson- Bailey
University of Georgia

This paper examines the informal and incidental learning that lesbians experience in order to negotiate the heterosexism of corporate America. This paper will discuss heterosexism and its pervasiveness in the corporate setting; it will examine the double challenge of lesbians who work in the corporate setting; what lesbians have learned about negotiating the corporate setting, and how they have learned to negotiate the setting.

Keywords: Lesbians, Corporate America, Informal and Incidental Learning

To be same-sex oriented in a society that is undergirded by the heterosexual assumption is a stigma. For centuries gay and lesbian couples have formed and maintained relationships outside legislative and social approval (Johnson, 1996). Reflecting the norms of the wider society, corporate America is also characterized by heterosexism, sexism and the resulting interlocking systems of power (Badgett, 1995; Digh, 1999; Herek, 1989; Fassinger, 1995; Hill, 1995; McNaught, 1993; Miller, 1998; Swisher, 1996). Due to these interlocking systems of compulsory heterosexuality and sexism (Miller, 1998), both formal and informal methods of discrimination exist in corporate America. Formal discrimination often involves employer decisions to fire or not hire someone due to their sexual orientation as well as being passed over for raises, promotions or increased job responsibilities (Croteau, 1996). Informal discrimination includes verbal harassment, property violence, and loss of credibility or respect by a co-worker (Morgan & Brown, 1991). Today, no homosexual is explicitly protected from workplace discrimination at the Federal level, although many organizations now have their own individual anti-discrimination policies.

Gays and lesbians, therefore, who work in corporate America must negotiate the heterosexism of their environment through a multiplicity of strategies including passing as straight, closeting, hiding, lying, dropping out, and coming out (Adams, 1996; Boatwright, Gilbert, Forrest, & Ketzenberger, 1996; Driscoll, Kelley, & Fassinger, 1996; Fassinger, 1995; Friskopp & Silverstein, 1995). Lesbians are doubly challenged because of their gender as well as their homosexuality (Driscoll, Kelley, & Fassinger, 1996; Morgan & Brown, 1991). Gay women executives are slower than gay men to make their sexuality known because they differ not in one but in two important ways from straight male executives, who still tend to surround themselves with similar colleagues at the very top of the ladder (Swisher, 1996). Lesbians, therefore, working in corporate America constantly negotiate the multiplicity of variables that can potentially detonate their careers. This negotiation process is arguably no different than the general experience of lesbian life in the larger society.

Because lesbians face the double bind of gender and sexual orientation discrimination, they are a unique category of professionals. Each lesbian who works in corporate America must learn through trial and error, underground networking, or other informal means how to negotiate the workplace. The purpose of this study, therefore, was to understand how lesbians learn to negotiate the heterosexism of corporate America. The research questions were: 1) What have lesbians who work in corporate America learned about negotiating the heterosexism of the organizational setting, and 2) How have they learned to negotiate the heterosexism of the organizational setting.

Methodology

A qualitative research design was selected for this study in order to uncover that meaning embedded in people's experiences (Merriam, 1998). A purposeful sample of ten lesbians who work in corporate America was used in this study. Ten were selected because by the seventh interview noticeable themes, words, and phrases were being repeated. Three more interviews were done in order to assure that data saturation (Merriam, 1998) was reached. The criteria used to select the women for this study were: 1) self-identifies as a lesbian; 2) is over the age of thirty; 3) has worked in the same corporate setting for a minimum of two years; 4) has budget responsibility; and 5) has more than two people who report directly to her. The women must self-identify as practicing lesbians. The study excludes

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women who think they might be lesbian, or who have had lesbian experiences, or who are bisexual. The second criterion was that the women were over the age of thirty because younger lesbians do not have enough experience in the work setting to provide a frame of reference for this study. The third criterion was that the lesbians sampled have worked at their present company for at least two years in order to have developed opportunities for learning. The fourth and fifth criterion—budget responsibility and a minimum of two direct reports—defined a research participant as a corporate member who has a fiduciary responsibility and accountability to the corporation.

The women are positioned from a structural standpoint (education, management authority) to be in positions of organizational power, with all being managers and some being at the executive level. While not specifically by design, all of these women have undergraduate degrees. Six out of ten of them have advanced degrees. Moreover, three out of ten of the women have been at their current organization for over ten years (Janet, Sharon and Pam) and all of them have been in current industry/profession for over five. What these profiles suggest, is that one key success factor in learning to negotiate the corporate setting is a strong educational background and a stable work history.

A semi-structured interview format (Merriam, 1998) accompanied by an opening statement and an interview guide was used in this study. The interview guide consisted of two parts: 1) general, demographic questions related to career and type of organization, and 2) questions related to experiences and learning in the corporate setting. Data were analyzed using the constant comparative method of analysis. The constant comparative method involves comparing one segment of data with another to determine similarities and differences (Merriam, 1988). The goal of this analysis was to make sense out of the data by determining categories and themes, reducing and refining those categories and themes until there are linked in a way which explains the data's meaning.

Background of the Study

The concept of heterosexism provides the scaffolding to understand the experience of a lesbian whose identity places her at the intersection of gender and sexual orientation in the corporate setting. Heterosexuality is the compulsory norm for society; corporate America, being a subset of American society, is also characterized by compulsory heterosexuality (Caudron, 1995; Digh, 1999; Friskopp & Silverstein, 1995). Heterosexism is a worldview (McNaught, 1993) and for most people, it is probably not even conscious. Heterosexism is not always a simple, benign, innocent posture. Rather, heterosexism is the belief that heterosexuality is actually *superior* to homosexuality and should be an enforceable social norm (Badgett, 1995).

Negotiating organizational life as a gay person in the face of heterosexist norms is a constant process of identity management and underground networking (Schneider, 1982). Signs of sexual orientation other than heterosexuality are rarely tolerated in the corporate setting. Although relatively little research has been done regarding gays and the workplace, what has been done suggests that gays and lesbians are expected to conceal their marginalized orientations from organizational view (Schneider, 1982). Because of this lesbians face a number of unique considerations when developing their careers in business. Lesbians often avoid divulging their sexual orientation in order to avoid harassment, rejection, and violence (Caron & Ulin, 1997). In a 1992 survey, 38 percent of lesbians who responded said the need to hide their sexual orientation was a constant source of stress on the job (Winfield, 1995). In addition to using passing strategies mentioned heretofore, many lesbians negotiate corporate America by opting out of it altogether (Fassinger, 1995; Morgan & Brown, 1991).

There are no formal or institutionally sponsored programs in existence that address the unique needs, concerns, and challenges of lesbians in the workplace. Until formal training and education programs are developed that address the issue of lesbians in corporate America, lesbians have only their experience to draw upon as educational tools. Therefore, this study used the Watkins and Marsick (1992) model of informal and incidental learning to understand the processes of learning. Watkins and Marsick posit that the central feature of informal and incidental experience is learning from and through experience. Informal learning means learning that is experiential and non-institutionally sponsored and includes learning by trial and error, mentoring, and coaching. Incidental learning is learning that occurs as a byproduct of some other activity, such as task accomplishment, interpersonal interaction, sensing the organizational culture, and trial-and-error experimentation.

Results

The first section discusses three themes about what lesbians who work in corporate America have learned about negotiating the heterosexism of the organizational setting. Section two presents the analysis of how they have learned.

What Lesbians Have Learned

Table 2 presents the three main themes that answer the first research question. Lesbians in corporate America have learned to pre-screen, to come out, and to educate others to the issues related to being lesbian.

Table 2. *What lesbians in corporate America have learned about negotiating heterosexism*

What is learned	When this occurs	Factors for Occurrence
The Pre-Screen: Gathering data in order to analyze receptivity of audience toward one's lesbianism.	Anytime one enters a new relationship (individual: colleague, superior, new group of subordinates; or group: new organization)	Visual: Symbols, speech or dress that would indicate intolerance for alternative orientations. Behavioral: Person's demonstrated openness toward new ideas. Political views (Conservative/Liberal). Hobbies/interests: metaphysics, New Age, alternative pursuits.
The Coming Out: Situational process in which a lesbian acknowledges her lesbianism.	Occurs after she has pre-screened the audience and there is a compelling or otherwise appropriate motivation to identify oneself explicitly as a lesbian.	Power balance: Facilitated by the other person/group disclosing sensitive or otherwise vulnerable material. Establishment at Organization:Facilitated by one's expertise in field and the establishment of relationships.
The Education of Others: Willingness and Ability to Serve as Change Agent for Heterosexuals' Sensitivity to Issues Related to Lesbianism	After the pre-screen, and after one has come out individually	A recognition of the significance and responsibility of one for educating others for not just one's own career survival or success, but for lesbians in a collective sense.

Learning About Prescreening. It is evident that as a lesbian conducts day-to-day business transactions she must deal with the fact that she is a gay woman in a straight male world. Being a lesbian is a ubiquitous component of virtually every relationship and nearly every task in her corporate life. This requires an understanding of how, when, why, what, and who to reveal material about this important personal characteristic of her life. The first activity that these women have learned is to pre-screen a superior, subordinate, or even an organization, in order to get a "read" on what the response will be if she makes her sexuality known. Corporate lesbians have learned to read a situation first before speaking or acting; thus this is the first part of the negotiation process.

Walking into a business trip, a business deal, an employee meeting, a sales call, or a monthly financial reporting meeting, involves skillful assessment of the possible ramifications of identifying one's lesbianism. There is much at stake for walking blindly into a transaction without this understanding. When meeting a new person, Liz looks for indicators of the person's general tolerance:

> I listen to people before I engage with them. So if I sense a lack of tolerance for certain kinds of things, people, music, art, a total focus on themselves, who they peer with, kinda gives me give me a clue that these are people are...there's a vibe. There's just a vibe.

Pam's learning has hinged upon her caution around the issue of the timing, circumstances, and parties to whom she comes out:

> So, the management chain in which I report up to, pretty much every one knows. The people who report to me, pretty much every one knows. The people who I've worked with several years, pretty much every one knows. But it's not the kind of thing like when I'm into a new position I don't announce it immediately. It's the kind of thing if somebody starts out asking questions about my life, I don't hold it back but I also have it's a little bit of a protection device on I'm not

going to announce that first thing. I'd rather for the person to get to know me and to from a work perspective get to know my work before they categorize me.

Pam is so careful with her pre-screening that when asked her if she had any regrets or any experiences with respect to negotiating her lesbianism and disclosing her orientation to an associate, she said:

I can't think of anything. I'm just so careful. One time when I was talking to a therapist she said, "You think about everything you do before you do it." And I think she said, "You're a thinker." And I think especially with that issue, I'm really really careful.

So the main aspects of the pre-screen are determining how ostensibly safe a person or an organization is by screening for how open someone would be to the idea of one's identification as a lesbian. These women have learned that it pays to stay in control of conversations and transactions with colleagues and supervisors. One's work speaks first, then one's voice can follow in the appropriate time and the appropriate place.

Learning About Coming Out. A woman is inevitably going to reach a point where she feels that the time is right to explicitly reveal her lesbianism. All of the women are out at work. Their peers know, their bosses know, and their subordinates know. While most or probably all of them used skillful timing and communication with respect to coming out, all of them ultimately were out. There were no stories of trauma or of disaster. There were no stories of being fired, or downgraded in their position. Rather, the coming out stories were sometimes very "happy" stories, sometimes borderline-humorous, and at worst, they were neutral. All of these women identified that their initial coming out incidents gave them courage, incentive, skill, and motivation to come out in larger capacities.

Susan and Kim both identify the importance of timing, sensitivity, and finesse with respect to coming out. Both were concerned that they needed to come out so that if their lesbianism were raised to their bosses, and they hadn't been informed, their bosses would defend their reputation as heterosexuals. In order to proactively manage the boss's reputation and credibility as well as to maintain collegial trust, Susan advised her superiors of her lesbianism:

I wanted to tell my boss. Now, up to this point I had just told my peers. I didn't tell my boss...she's one of these people like if someone were to walk up to her and say "I just heard, I just read that Susan was gay." She would say "Absolutely not! I can't believe you'd say that!" You know, she'd defend me. And I didn't want her to embarrass herself by thinking she was being protective and in reality, it's like "no, I am." So I told her about it and she was fine with it.

Kim observes in a more abstract way the importance of understanding the ramifications of how, when, where, and why one comes out:

It's important to understand that every action has consequences. And you need to think about those. If you're gonna come out in a big public way that makes somebody look foolish, you need to think about that. I mean foolish in the sense that you know, if you've been workin' for somebody for a long time and they think they know you and all of a sudden they realize they don't know you, they look foolish. I think you need to understand that if you want to be extremely political, there may or may not be a place for you in your organization.

In both Susan and Brooke's coming out at work stories, their strategy was to "act normal." They both conducted themselves in ways that communicated the fact that they felt neither self-conscious nor disempowered by their lesbianism. This self-composure was in both cases met with respect, and both women gained support and rapport with their colleagues.

Sharon, while working for a defense contractor, had to undergo a rigorous security clearance. During the security clearance, because of the question "Have you ever sought counseling?" When she responded affirmatively, the interviewer asked her for what purpose and she was put in the position of coming out. She ultimately had to list every "roommate" (lover) she had had to the interviewer. Nevertheless, Sharon got the requisite clearance:

Would that be Susie your roommate? I went "Yes." So we went back through the whole thing. And every time there was a female he asked was that a lover. And I had to answer. So it took five and a half hours. Because he said, "you've been...He asked me well are you out to your children? Are you out to your parents? Are you out to...". I had to answer in fact I was.

In these experiences of coming out, each woman's experience had its own unique setting, characters, and specific events and circumstances for the coming out process. However, all were resolute and honest with respect to claiming their sexuality—that is, not one of them lied, passed, hid out, or closeted themselves. In fact, coming out at the individual level gave the women the courage, the skill, the leverage, and the motivation to move into a position of serving as educators around the subject of lesbianism in general. The women wanted to sensitize their colleagues, superiors, subordinates, and clients as to not only their individual identities, but also about the issues and challenges faced by the collective lesbian population.

The Education of Others. The women learned they had a commitment to serving as change agents by educating others about the unique issues that corporate lesbians face. These successful corporate lesbians see that it is not enough to come out individually, but it is incumbent upon them to come out for the collective good. Mary Ellen identifies her responsibility as a powerful corporate lesbian to educate others about the marginalization of lesbians and that they can lead normal, happy lives:

> Up on my web site it talks about my partner and my kids. My partner and my kids come to work. And when you do things like for example, contribute the amount of money we did to [Political cause X], clearly that's a different level and I have responsibilities to the association, the shareholders, the customers and things and I have to think about things that I do.

Janet explained very clearly how she came to embrace her role as an educator in her corporate setting for lesbian and gay issues:

> I watched these employees who dripped of courage, determination, courage...So I sat there and I thought you know between the higher purpose in my life, in a very visible, senior position and I had the opportunity to work with these employees, with management to take this really to another level. So it was so obvious to me that I needed to come out you know for myself for the impact that it could have.

Janet's inspiration and motivation came from a recognition that there were lesbian and gay employees at her organization who had much more to lose by coming out than did she. She recognized that her rank placed her in a position to significantly affect change.

How Lesbians Have Learned. The learning that the women experienced took place in their interactions during the course of their workdays and not through formal programs of learning because such programs do not exist. Thus, corporate lesbians have instead learned informally and incidentally how to negotiate the heterosexism of their corporate organizations. Table 3 illustrates the three key types of events through which the women learned about successfully negotiating their organizational settings and the corresponding mode of learning. There were several examples of incidents relayed by the research participants, and these incidents are chosen to be illustrative of the patterns of learning they experienced.

Table 3. *How lesbians have learned to negotiate the corporate setting*

Type of Event	Description	Major Type of Learning
Dealing with Human Resource Departments	One's lesbianism comes up during the discussion or negotiation of moves, transfers, or reporting relationships.	Informal
During Committee and Group Work	By affiliation with special groups, Boards, and such, the subject of one's lesbianism becomes germane.	Incidental
At Social/Corporate Events	Holiday parties, happy hours, etc. often include spouse. Women many times take their lovers.	Incidental
	During casual conversation, mention lovers. No hiding of orientation.	

Dealing with Human Resources. Much of the learning that the women experienced involved dealing with their Human Resources Departments on such matters as relocation, benefits, and staffing. On all of these occasions, the women were seeking information in their interactions with their Human Resources' associates. Hence, the learning in this category was categorized as informal. The interactions were initiated because someone was seeking to learn something—whether it was asking for information about relocation assistance for a lover, making a new hire, or asking about domestic partner benefits. Sharon learned through an adversarial encounter with a Human Resources Manager about negotiating her identity:

> So they start talking about me hiring friends on the contract. Now they're not talking about what is really happening—they are dancing around it. Right? So "It's been noticed that you're hiring friends on the contract. The nepotism on this contract is just running wild." I said, wait a minute!

> Have we had a paradigm shift here? A year and a half ago we had posters on the wall saying "bring your friends to work." I thought that was what we were trying to do.

Sharon's experience with her HR manager was an example of informal learning because the conversation was intended to deal with her recruitment of acquaintances.

During Committee and Group Work. Much of the learning that lesbians have experienced has occurred as they are participating in committee work and other types of group work. While some of the committees and groups directly involve the issue of lesbians and gays in the workplace, there are also examples of learning that took place as the women worked in mainstream, traditional types of committee and group work. Learning during committee and group work resulted in incidental learning.

Mary Ellen said that she is heavily involved in committee and group work both within her organization and also in her community, and has learned about negotiating her lesbianism in a powerful way:

> I had a former Board of Trustees come over and want to talk about relationships, whether I play a bigger role. I serve on the University Athletic Board and couple other things and I said well you know frankly for the gay and lesbian population they feel really disenfranchised and went on about that and you know because I'm perceived as a competent businesswoman and a visible executive, they think I'm a person of wealth. All those things somehow mean they have to figure out how to deal with me if they want a chance to have my money and my name.

Mary Ellen's learning through her committee and group work was incidental because as she served on various boards, the subject of her lesbianism would inherently arise because of her activist stance. The learning was incidental because her own coming out was a byproduct of another activities--such as contributing money to various causes and for various projects.

Janet learned that her fears around coming out were, as she said, "Larger than life." As she examined her own self-consciousness around being a lesbian in a predominantly heterosexual businesswomen's alliance, Janet felt trepidation about coming out within this group because she thought that her openness about her lesbianism might scare off her straight peers in the group. However, she came out to her group and was met with sensitivity and concern. Janet, then, learned incidentally of her group's tolerance and sensitivity toward her lesbianism because she had reached a critical moment in her lesbian identity that would not allow her to remain in the closet within and among her cohorts in this group. The main activity that Janet participated in was coming out to this group of people who were so important to her. The by-product of that activity was that she learned how receptive the group was to her lesbianism. Thus, her learning of the inclusion that her straight associates genuinely felt—demonstrated by their visible upset at not having addressed the subject themselves--was byproduct of Janet's coming out to them.

Social/Corporate Events. Another way that the women learned about negotiating the heterosexism of the organizational setting involved their experiences during organizational functions such as holiday parties as well as during routine social activities such as lunches and dinners with colleagues and superiors. These social activities, whereby the emphasis was not directly on work tasks or responsibilities, lent themselves to a freer exchange of conversation and arguably more opportunity for "exposure" (whether wanted or unwanted) of their lesbianism and all the resulting and necessary negotiation around that subject. The learning that occurred during social/corporate events was incidental to the primary purpose of attending the events.

When Jennifer described her experience with the co-worker who had asked her about the "wildest thing she had ever done," she learned incidentally that she was comfortable coming out to someone when they divulged equally sensitive information about themselves. The reason that this learning was incidental is because Jennifer's lesbianism came up as a result of a casual conversation, not particularly intended to gather information around the subject of her lesbianism. Again, learning through a social context outside of work—having lunch with a colleague—resulted in incidental learning:

Pam, too, learned about coming out during a social event (lunch with an employee):

> With an employee that works for me, we were at lunch and I hadn't come out to him and he had been with the company maybe four months or something like that and he was talking about him and his wife and he happened to be talking about the gay area of town. Not calling it the "gay area of town" but you know that he and his wife like to go to a restaurant down there. I said, "Oh, we go there a lot too." And then I just threw in, you know, that's kind of the gay area and I happen to be a lesbian and I like that restaurant cause I feel so comfortable there. From then on, I wasn't having to hold back anything.

Pam's learning about coming out to a new colleague as they were discussing favorite restaurants and neighborhoods was another example of incidental learning, because Pam's learning of her subordinates' receptivity to her lesbianism was a by-product of the main activity, which was their business lunch.

Discussion

We discuss three overall conclusions based on the results of the study: 1) It is difficult for lesbians to negotiate the heterosexism of the corporate environment; 2) Lesbians in corporate America have learned how to negotiate strategically the heterosexism of the corporate environment through informal and incidental learning; and 3) Lesbians who are succeeding in corporate America take responsibility for educating their associates about issues related to lesbianism.

The evidence from this study suggests that corporate America continues to be a bastion of heterosexism (Boatwright, Gilbert, Forrest, & Ketzenberger, 1996; Chung, 1995; Fassinger, 1996; Morgan & Brown, 1991). The women in the sample experienced heterosexism as they negotiated both the mundane tasks associated with their jobs as well as the larger issues related to their overall careers. Although these women were in high-ranking positions, with the power and privilege that ostensibly accrues to holders of such positions, they nevertheless had difficulties in negotiating the heterosexism of their organizational settings.

While the women in this study are all out lesbians, they are cautious and strategic about coming out. The process of coming out is not a static, finite process. Rather, coming out is an iterative process that is negotiated every time a lesbian enters a new situation such as a new organization, workgroup, client, superior, subordinate, or committee. The literature speaks of coming out strategies (Fahy, 1995; McNaught, 1993; Signorile, 1995) in terms of providing prescriptive measures that a gay or lesbian can do to come out. Yet there is little if any literature that addresses the complexities and contingencies of the corporate setting, where people's views, beliefs, and reactions are mixed. The experiences of coming out described by the women in the study substantiate the literature that describes the coming out process as a risky endeavor because doing so potentially jeopardizes career mobility and opportunities (Fassinger, 1996; Folbre, 1995; Morgan & Brown, 1991; Welch, 1996). In other words, the women were constantly aware of the risk involved in coming out and they moderated that risk with their pre-screens. In doing so, the women successfully used caution, assessment, and strategy when coming out in order to mitigate any adverse affects on themselves or their careers.

Lesbians have learned informally and incidentally to negotiate the heterosexism of their organizational settings. Therefore, the lesbians who do succeed in such negotiations are involved in a process of learning that began upon their entrance into their organizations and continues for them. In the absence of any formal training or education, therefore, these women have learned through their experiences how to successfully negotiate their organizational settings. Informal learning includes trial and error learning; mentoring; and coaching; whereas incidental learning is learning that occurs as a byproduct of another activity (Watkins & Marsick, 1992). Sometimes their learning is actually intentional as they seek information (such as dealing with Human Resources regarding benefits information and such) and many other times, the learning happens without plan, and because the subject somehow came up and the women had to handle the issue.

It was not enough for the women in this study to come out on an individual level. Rather, they felt a responsibility for educating their associates about issues and matters related to being lesbian. This education fell into two categories: 1) serving as educators by being living examples of lesbians who were "normal people," and 2) directly educating by teaching other organizational members about heterosexism and addressing issues of being a lesbian in the corporate setting. The responsibility felt and demonstrated by the women connects to the literature on lesbian identity development because only by having strong and cohesive self-concepts as professionals and as lesbians did they have the courage and integrity to serve in such a role. The literature on lesbian identity development describes stages (Fassinger, 1995; Mobley & Slaney, 1996; McNaught, 1993) which progress from awareness of same sex attraction to acceptance to synthesis and integration into a lesbian's psyche, behavior, and interaction with others. The women in the study were at the highest stage of lesbian identity development, in which their awareness and integration of their lesbianism was complete. Because the women were comfortable with themselves and their orientations, they could with facility bring about awareness and education to their associates about issues of homophobia and heterosexism. After all, it was not enough, after coming out individually, for them to come out. They felt that when a teachable moment presented itself—that is, an opportunity to teach an associate about an issue that had probably not crossed their mind—they were responsible to provide this awareness for the sake of other lesbians.

The implications of this study for Human Resource Development are that lesbians in the corporate setting need to be recognized by HRD researchers and practitioners as a unique group and not subsumed into the grouping of

heterosexual women or gay men. They need to be studied as a separate group so that HRD can address those unique differences and needs. The learning needs of lesbians in the corporate setting must be made part of the HRD training and development agenda. Moreover, the training and development agenda must involve the entire organization and not just for lesbians, in order for HRD to make a meaningful impact, as the heterosexism of the entire organization is what creates and perpetuates the unique learning needs of its lesbian members.

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Internationalization: Learning Processes in a Greek Manufacturing Group

Patricia S. Sherrer
Georgia State University

This qualitative study based on gaps in the literature tested individual and organizational learning theories for use by HRD professionals in the practice of facilitating internationalization. Research on topics about cognitive, reflective processes in internationalization lag behind that of behavioral dimensions. Participants report leadership practices and identities of expertise influenced byGreek culture, incidental learning of other cultures, and individually motivated career paths in an implied context. Cultural influences of learning processes need more study.

Keywords: Internationalization, Organizational learning, Cultural learning

Findings help HRD practitioners understand those engaged in internationalization and proposes how culture influences individual and organizational learning processes during this change.

Problem Statement

Based on gaps identified in the literature the purposes of the study are first to increase our knowledge of new theory in the facilitation of internationalization change. Then it attempts to gain a holistic, contextually grounded view of the internationalization process for both individuals and organizations outside the U.S. Finally, it proposes to extend prior research in internationalization processes and cultural learning with the aim of improving practice of those HRD professionals engaged in internationalization change.

Internationalizing organizations are *learning to be* international from the first cross cultural interaction, however, research is more often focused on active, visible *doing* elements of this change in studies with topics about structure and strategy. International joint ventures and strategic alliances (Barkema, Shenkar, Vermeulen, & Bell, 1997; Larsson, Bengtsson, Henriksson, & Sparks,1998), international (Barkema & Vermeulen, 1998) as well as domestic (Greening, Barringer, & Macy, 1996) expansion decisions have recently begun describing organizations as systems of learning. Briody & Baba (1994) in a study of U.S. and international merging divisions found knowledge, experience, and collaboration to be recognizable types of learning in internationalizing organizations. Theory has not been used in these instances to offer simple explanations, define applied problems in new ways, or help to focus on problem solutions by discerning priorities (Campbell, 1990).

Research on links between individuals and organizations suggest mutual influences occur during organizational change through organizational processes. While individuals report that collaboration and leveraging of cultural differences are reported as useful in reaching internationalizing goals (Center for Creative Leadership, 1997; Yeung & Ready, 1995), U.S. repatriates report varying organizational attitudes about what skills repatriates have to offer on their return from assignments (Black, 1992; Briody & Baba, 1994; Harvey, 1989). Other implicit organizational processes such as perceptions of career path or status acquisition were found defining attributes of employment in a U.S. organization during organizational change (Briody, Baba, & Cooper, 1995). Another study found internationalizing employer practices to be mediators of expatriate organizational commitments (Guzzo, Noonan, & Elron, 1994). Eisenhart (1995) found that individuals through production of new ideas and public performance add to collective ways of thinking and acting thereby changing culture in organizations. Research is needed to further explain what processes facilitate internationalization change between individuals and organizations.

Individual internationalization processes have been studied as isolated, behavioral topics, without theory (Black, Gregersen, & Mendenhall, 1992; Mendenhall, Beaty & Oddou, 1993) and in largely American owned organizations (Adler & Boyacigiller, 1996). These studies of cross-cultural training (Black & Mendenhall, 1990), expatriation (Black, 1992; Briody & Chrisman, 1991; Dunbar, 1992), and repatriation (Harvey, 1989) found the routine need and use of cultural knowledge as people work in ambiguous intercultural situations. Cultural learning study among American expatriates (Taylor, 1994) and subsequent review (Taylor, 1997) calls for more holistic and contextually grounded study. In this manner, a qualitative case study exploring how individual learning processes based on theory facilitates internationalization in a context outside the U.S. was needed.

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Theoretical Framework

Two untested theories are used as frameworks for this study. First Cowan's (1995) theory of organizational learning was chosen because it is based on the thinking of indigenous people; developed over generations of observation it describes how organizational wisdom might be created. Then Tomasello, Kruger, & Ratner's (1993) theory of cultural learning was chosen because it theorizes how we first learned our own cultures; learning unfamiliar cultures is proposed for study as a similar process.

Cowan describes wisdom, not as expertise but built on a collective, collaborative behavior, and thinking in organizations among knowledgeable and experienced people where comfort with ambiguity is desired. Cowan's explanation of *how* learning in organizations takes place is outlined as forming connections between organizations and individual members: a) developing a *both, and* mentality that is moving from a separation of learning and performance to learning from every organizational relationship, b) replacing linear, experts with circular models of reexamination, reformulating, rethinking what has been learned, while continuing to learn anew, c) shifting from short-term operational strategies of variety reduction to a long term survival strategy of balance between consistent core competencies and keeping in touch with changing environments, d) integrating knowledge and experience to form organizational wisdom by providing opportunities to make nonexpert decisions/choices about organizational processes in the face of uncertainty and ambiguity.

Links between individual and organizations that guide practice have been detailed by other theorists (Argyris, 1976; Schein, 1992), reviewers of theorists (Dixon, 1992), and researchers (Inkpen & Crossan, 1995). Cowan's ideas about learning parallel those of Argyris' description of double-loop learning and are consistent with populations who attend to naturally occurring patterns of meaning and learning like those working in ambiguous cross-cultural settings. In this manner, Cowan's theory was appropriate for studying organizations in cross-cultural environments.

The second theory proposed as a theoretical framework is Tomasello et al's (1993) cultural learning theory is described an individual learning culture by imitation, instruction, and collaboration. Collaboration is a situation that consists of peers collaborating to construct something new that neither had before the interaction began. The new cognitive representation resulting from the learning includes something of the perspective of the interactional partner, a perspective that continues to guide the learner even after the original learning experience is over.

In change theory unfreezing, moving, and refreezing may be facilitated by learning through the reduction of barriers that Lewin describes as negative forces triggered by new or discomforting information. Like the loss of equilibrium described as the first step in cultural learning (Taylor, 1994; 1997), Lewin likens the loss of equilibrium to diagnosis. Moving, the next stage in change, means changing attitudes, values, and beliefs. Refreezing means reaching a new status quo through some support mechanism. While learning facilitates change, not all learning produces change. Both Lewin and Cowan suggest returning to earlier levels of diagnosis or loss of equilibrium, not because of forgetting but to be open and continually receptive to the next move in attitudes, values, and beliefs (Cowan, 1995; Lewin, 1946).

While competing theories support and explain change, learning theories are suggested here because they might be used to guide the practice of facilitating change. In this manner organizational and individual learning theories were chosen for possible use by HRD practitioners. The following questions were unanswered in research.

Research Questions

How do individuals learn cultures that are not their own? How does actual versus expected career path influence members of the internationalizing organization? How do internationalizing organizations use the learning of their members for competitive advantage? What factors align all elements of the organization with its international environment?

Methodology and/or Research Design w/ Limitations

Qualitative study of an organization outside the U.S. was chosen due to a gap in the literature for this type study (Adler & Boyacigiller, 1996; Mendenhall et al., 1993). Despite the language barrier and time limit, this design helped understand the processes that lead to outcomes that survey research were not able to identify. Sampling reflected participants who had worked internationally for an average three and one half years for intensive study (Bernard, 1995). Ethnographic interviews, observation, and artifact review methods were used to gather data from English-speaking Greeks in separate pilot and case study organization. Both samples were Greek-owned manufacturing groups engaged in internationalization in October, 1999; the studied organization since 1987.

The researcher studied people in their context, attempting to make sense of processes used in internationalization and what meanings people brought to that engagement. A major strength of qualitative studies is their ability to examine processes. Ethnographic interviews with participants led to insights that revealed implicit processes, making them explicit. A model of internationalization and the role of learning processes involved in it were developed based on the following method guidelines (a) the need for context-based data, (b) the importance of reality grounded theory to the development of a discipline, (c) the interactive role of people in shaping their worlds, and (d) the interrelationships among conditions, meaning, and action (Maxwell, 1998). In this manner, using the data collected, I examined untested theory, posing useful propositions for further testing.

Grounded theory methods were used to analyze study data. All interviews were conducted by the researcher and transcribed in English (Spradley, 1979). Pilot study provided a needed conceptual context for the researcher, both about Greeks working internationally and Greek internationalizing manufacturing organizations. Nine interviews were conducted with English-speaking Greek members of a Greek-owned manufacturing organization headquartered in Marousi, north of Athens, Greece and at a manufacturing plant on the National Lamia Hwy outside Athens. Four additional informational interviews were conducted where present and future growth strategies through acquisition and merger were reported along with leadership development strategies.

The organization studied was a Greek-owned paper manufacturing organization headquartered in the Pefkakia area of Athens, Greece. The domestic operation was established in 1980 in the Thrace region of northern Greece and continued as the organization began internationalizing in 1987 in Egypt, adding two plants in Hungary in 1994 and one in Bulgaria by 1997. The original founder-leader remained the President and owner in late 1999 at the time of the study.

Cairo, Egypt was a greenfield, start-up operation, the first tissue manufacturer in Egypt. Plants located in Hungary and Bulgaria were acquisitions made at the end of government controlled enterprise regionally. Despite a historically agrarian economy with 25% of its GNP (Smith, 1999) from manufacturing, Greece's European Union status, the end of Cold War political strategy and general trend toward privatization of industry regionally were situations producing opportunities where none had existed before. With a newly active stock exchange, lowered inflation and unemployment for acceptance into the Euro monetary exchange, Greece in late 1999 offered the context of a changing environment for internationalization suggested by researchers (Alder & Boyacigiller, 1996).

Thirteen interviews were conducted over a period of five and one-half weeks in September and October of 1999. All participants were Greek and worked in the domestic operation in Greece before working in Egypt, Hungary, or Bulgaria. International work experience spanned from one to five years; each was identified by the organization before the study began. Five were educated outside Greece for postgraduate education. Participants' occupations were at the upper and middle management levels; the Human Resource Director was the only woman. Five of the 13 participants were repatriates. Three repatriates had taken their wives with them on their expatriate assignments for up to five years; at the time of the study these three were the headquarters upper management level of the organization. The average age of all 13 participants was 35.

Participant observation included establishing a rapport with the participants. This served as one of the multiple methods used to both collect and triangulate data in the study using the method of constant comparison (Strauss & Corbin, 1990). Document review was also used to both collect and triangulate data between the interview findings, detailed field notes and diary entries.

Data analysis was performed on 13 transcribed interviews according to Strauss & Corbin (1990). Member checks were conducted using transcribed interviews of the one un-taped and two telephone interviews to ensure validity of information. All interviews were printed, coded, and archived using Nud*ist data management software.

Attention to validity was also made in this case study by providing a clear explanation of the phenomenon under study and attempting to control biases (Bickman, Rog, & Hedrick, 1998) through a framing interview conducted with me by an outside researcher. Limitations of this study were

1. Findings reflect a management perspective. Sample was upper and middle management level that could speak English and were willing to participate. 2.Ethnocentric bias of the findings. Despite the literature review that as much as possible reviewed studies conducted outside the U.S., a large pilot study conducted in Greece, and member checks throughout, the findings have been filtered through the U.S. researcher.

3. Language while not an impassable barrier prevented my gaining entrance to meetings that were held in Greek, making those secondary accounts not directly observed. 4. Time scarcity was a limiting factor giving only the snapshot of the change and the organization.

Results and Findings

Energizing prospects, becoming international, and gaining respect were three recurring themes developed into major

categories from 22 initial codes in the data. Energizing prospects were those happenings that led to the development of internationalization, becoming international were those specific properties that pertained to internationalization, and gaining respect included outcomes or perceived results of the participants having worked internationally. Intervening conditions reported and observed were Greek culture through social relationships in individual learning processes and leadership thinking in organizational learning processes.

Participants reported learning incidentally (Cseh, Watkins, & Marsick, 1999) as part of becoming the Greek International Man (term inferred from data, not used by participants). They described first trying to understand the "mentality" of the cultural other, then often instructing other Greeks who came later to work or tour about the other culture. This was described as "the nature of the job". Collaboration was often reported as problem solving which happened daily in cross-cultural work "to get the job done"; solutions were not Greek or representative of the other culture but could only be achieved using the "language of the job". This learning process was facilitated by the organizational use of translators initially and the presence of language training, while not always convenient logistically and was expected to be obtained after hours, part of an incidental learning process.

Greek teams were sent in to "maintain Greek levels of efficiency" e.g. improve profitability, in some cases teach the principles of private enterprise with regard to sales, finance, marketing, and in others teach improved manufacturing technical knowledge. These ambiguous cultural contexts found participants relying on building social relationships with the other culture; socializing with others is an integral part of Greek culture and was reported by participants as relied on to facilitate learning. Individual Greeks, without others in the field, found this more difficult and caused more trips home for some (no location was more than about an hour flight away) or the need to communicate more with headquarters. Organizational culture was a constraining condition as expertise was valued among leadership, modeled after the founder-leader; upper level managers described themselves as "instructors" and "telling others". Greek cultural beliefs of closure were found in leadership thinking where those in authority were perceived as experts who could solve problems.

Greek organizational members reported a belief in the experience of organizational leaders as a competitive advantage. Collaboration between headquarters and plant level management was replaced by "telling" behavior from headquarters to plant. There was no participation or collective use of the learning processes or their outcomes reported. More participants than not were energized by the prospect of "learning more, faster" in cross-cultural contexts than at headquarters. An organizational culture of expertise aligned this organization with the environment.

Individual career development was intrinsically motivated in an organizational context where career path and performance review was implied, not explicit. Organizational career path was determined by a benevolent, experienced Founder-Leader. Job descriptions existed but were "not paid attention to". Infrequent firings were due to an inability to adapt. While some family members were in upper and middle management positions, not all were as is the case in many Greek-owned organizations. HR Director's tenure was four years and replaced a payroll clerk position.

Boundary spanners were reported as invaluable in day to day operations, often acting as mentors for onsite Greeks from headquarters. Dixon's (1992) label of boundary spanners was used in the study to describe those Greeks or host nationals who could speak both languages (Greek and the one needed at the time). For example, Greek participants utilizing Egyptians in sales and factory positions where no tissue manufacturing existed reported a Greek employee who spoke and had lived in Arabic countries as instrumental in creating a sales force; also in this setting was the use of an Egyptian who was a mediator between Greek managers and Egyptian factory floor employees. Boundary spanners are among the outcomes of cultural learning.

Conclusions and Recommendations

Organizational culture required not only the incidental learning of other cultures but also development of a Greek International Man identity. Embodied by the Greek founder-leader in this organization the identity was devised to get along in the organization. Components of this identity included a) college education, cultural learning experience b) multilingual (avg. was three), c) willingness to travel, sustaining a variety of time periods away from home, d) willingness to learn and change in an organizational context that is slower to do so, but will provide individuals the opportunity, e) become a cultural evaluator, modifying your own cultural attributes, adopting those of other cultures that you find useful, f) maintain a level of efficiency that is close to that of the home culture, g) form relationships with the cultural other, h) occupation, i) gender, j) maintains individual career path in an organization where the path is not explicit.

Since culturally influenced learning and the leadership consequences it creates are the context of international work, information about, experience with, and participation in cross-cultural collaboration for organizational outcomes are suggested as important elements of internationalization. However, the added elements of the Greek

International Man yield a storyline about internationalization that is inclusive of reality, more than learning alone. While in need of further study, this begins a dialogue about the HRD perspective of internationalization change; adding to research about strategy, and structural changes, this suggests the profile of individuals who could believe and value change as well as the processes that facilitate change.

Support in the data of Tomasello et al. (1993) individual cultural learning theory suggests that this theory comes closest to the thinking parts of what happens in the process. Taylor (1994) described a behavioral view of cultural learning including triggers and outcomes but in later study (Taylor, 1997) he describes gaps that were cognitive, affective, and unconscious. In need of further testing, Tomasello et al. (1993) and this supporting data suggest a cognitive level of the process that might be facilitated by HRD practitioners that brings about change in individuals to "get the job done" internationally.

Greek culture is a barrier to organizational collaboration, Cowan's (1995) level of organizational learning needed for transformative change. Herzfeld (1986) supports the evidence of closure in Greek culture; he writes that those who ask for cures in a curer relationships are often seen as weaker, that the state of needing help is undesirable. In a culture where expertise was valued and closure as a cure for problems was the norm, organizational collaboration was not found.

Culturally influenced leadership affected individuals in the organization while individuals were only beginning to move in the direction of influencing the leadership; this finding suggests some evidence of the need for collaboration beginning. This finding supports the work of others who suggest that individuals influence organizational processes (Briody et al. 1995; Economist Intelligence Unit, 1991; Eisenhart, 1995; Guzzo et al, 1994). The common element of both individual and organizational learning was theoretically proposed as collaboration, however, organizational collaboration was not found. This is supportive of the practitioner work of Argyris (2000) who writes that transformative learning is often resisted in organizations. HRD practitioners might focus on the participative, collective elements of collaboration, nonexpert thinking suggested by Cowan and Argyris. More research is needed to identify how culture might be used to the advantage of HRD professionals; for example, Greek use of social relationships and concern for a common social outcome might be useful to begin intervening with a more participatory approach to leading.

Serving as an integral context for the internationalizing individual, the internationalizing organization was found to be reflective of the national culture in which it operates. The findings of this study are exploratory regarding a shift in perspective in international HR from a preparation point of view to a benefit point of view as suggested by Inkson, Arthur, Pringle, & Barry (1997) and in need of more research in other contexts. HRD professionals could begin informal dialogue about the use of the learning processes of experienced individuals with collaborative ability and their possible participation in collective decision making thereby initiating a nonexpert, point of view through modeling.

Transformative elements, implied in all learning organization theories, suggest a fundamental change in the way individuals relate in organizations, from a control orientation to an organization that values collaboration and collective decision making. Transformative learning a type of revolution in the thinking of organizational members is based on systems theory ideology that the whole is more than the sum of its parts. Development rather than control suggests that all organization participants are interested in achieving goals as well as long-term sustainability of organizations.

How this Research Contributes to New Knowledge in HRD

Culture of the headquarters organizational leadership must be considered as well as the proposed unfamiliar cultures. Data suggests that the culture of the ownership organization impact on the learning process is a powerful determining factor in how internationalization will be reconciled in the workplace. While it is not new that people come to the workplace with beliefs and expectations met by leadership and processes, all of which are influenced by the culture of the organization's leaders, this data suggests that culture influences learning processes that then influences all of the above. Issues HRD professionals in internationalizing contexts need to be aware of are (a) knowledge of both your own culture and the other culture is part of becoming international, (b) individual career expectations and leadership ability to collaborate can be culturally influenced, and (c) internationalization includes more than learning..

It increased explicit knowledge about how both individuals and organizations learn to be international through the use of theory, prior research gaps, and the data gathered in this study. An added value of the study is in the study of a sample outside the U.S., Greece in particular. There were few studies of Greeks, none about international HR in Greece, and only one study using a Greek manufacturing context.

This information begins to help HRD professionals discern what is important and what is not in

internationalizing in order to help individuals develop and organizations strategize. With regard to the cadre of people who are developed as a result of international work, this research is exploratory possibly termed a proposed theory in use (Argyris ,1976). To the degree that community and familial expectations are continually important in organizations, culture affects learning.

Phenomena like the Greek International Man and the "curer" were found along with transitions in learning reported in break away thinking of some participants signal the beginning of a transition in learning. The Human Resource Director was making changes incrementally through an informal, familial relationship with the Founder-Leader. Data compared to the models of individual learning and organizational learning resulted in models for use by HRD practitioners that come close to reality. Explored were untested theories. It added to the research on elements of cultural learning found in Taylor (1994; 1997). Finally, it entered the dialogue of HRD theory development to guide practice in internationalization in the workplace.

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HRD, Feminism, and Adult Education: A Foundation for Collaborative Approaches to Research and Practice

Yvonne M. Johnson
Northern Illinois University

HRD professionals, feminists and adult educators seek to improve the workplace for individuals but often operate in isolation rather than in partnership. Collaboration between the groups would serve to expand the literature bases of all three areas by providing a breadth of approaches to research and practice rather than narrow perspectives. This paper identifies common interests among HRD professionals, feminists and adult educators and opportunities for collaboration to advance the three areas.

Keywords: HRD, Feminism, Adult Education

HRD professionals, feminists and adult educators have common interests but seem to operate in different spheres of higher education, business communities and society. The groups often criticize each other for not addressing key issues that impact adult learning. For example, HRD practitioners may criticize adult educators for not considering business forces that shape HRD policy and decisions. Conversely, Feminists may criticize HRD for not addressing the needs of women in the workplace while adult educators may criticize HRD for catering to business goals without consideration of individual adult learners. All of the groups are concerned with adult learning in the workplace but use different frameworks to conduct research and practice.

Collaboration between HRD professionals, feminists, and adult educators would provide opportunities for increased understanding of the alternative views and expanded opportunities for partnering in research and practice. Partnerships would allow practitioners and academicians to cross conceptual boundaries and address adult learning issues that have traditionally been isolated to specific areas of HRD, feminism, or adult education rather than addressed across conceptual frameworks.

This paper will describe the areas of HRD, feminism, and adult education and identify common interests among the groups. Critiques of research in these three areas will also be reviewed to problemetize the current situation and suggest factors that may perpetuate the divisions between HRD, feminism and adult education. Links between the three literature bases will be identified to provide the foundation for collaborative efforts across the conceptual frameworks of HRD, feminism and adult education.

Problem Statement

As the HRD field emerges, critique of theoretical frameworks and practices is required to prevent reproduction of theory and practices that maintain the status quo (Bierema & Cseh, 2000). Limiting HRD to maintenance of the status quo perpetuates unequal, gender-based power relationships that exist in the U. S. society as a whole. The increased participation of women and other marginalized groups in the full-time workforce create opportunities and dynamics that companies cannot afford to overlook in the competitive global marketplace. Concurrently, the changing demographics of the U.S. workforce need to be addressed by HRD programs directed toward employee development.

HRD professionals manage multifaceted programs for individual, career and organizational development in the increasingly complex global marketplace (Gilley & Eggland, 1989). In spite of the complex and sensitive issues faced by HRD practitioners, research related to knowledge construction in the field of HRD has been limited in scope. Bierema and Cseh (2000) reviewed HRD research and concluded that prevalent workplace issues such as: "diversity, equality, power, discrimination, sexism, or racism" (p. 141), were not a primary focus in the HRD literature. They also argued that "despite more equal opportunity, women are still segregated into typically "female" careers, and the wage gap persists" (p. 141). Failure to explore prevalent HRD issues, such as diversity, sexism, and power relationships perpetuates the marginalization of groups, such as women who have limited power in the workplace (Johnson, 2001).

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Methodology and Propositions

The purpose of this paper is to review HRD, feminist and adult education research to identify topics, problems, and common interests among the fields. First, topics addressed in HRD research, feminist HRD research, and adult education research will be identified. Second, critiques of the three literature bases will be reviewed to problemetize the current situation and to identify factors that may perpetuate the divisions among the three fields. Third, HRD, feminist and adult education literature bases will be referenced to identify common interests and the foundation for collaborative efforts to bring together the disparate literature bases of the three fields.

Conceptual Framework

The author recognizes the wide spectrum of perspectives and theories that are encompassed by the fields of HRD, feminism and adult education. For the purpose of this paper, Gilley's (1989) model of HRD and Tisdell's (1998) model of feminist pedagogy will be used. Portions of the adult education literature base will also be referenced to complete the analysis. Due to the broad and inclusive scope of the HRD, feminist and adult education literature bases, it is beyond the scope of this paper to address all of the perspectives and theories of these three areas or to make broad generalizations about the three fields.

A Glimpse at the Field of HRD

HRD is gaining prominence due to increased global competition. Many business leaders seek to maximize employee performance through HRD programs. Gilley and Eggland (1989) described HRD as the integration of individual, career and organizational development. Individual development relates to acquiring or improving performance and skills for the current job while career development prepares an employee to develop skills for future jobs. Gilley and Eggland indicate that the OD component of HRD assists organizations with reaching the highest level of efficiency by creating "congruence among the organization's structure, culture, processes, and strategies within the human resource domain" (p. 15). The focus of all three components of HRD is individual performance that supports enhanced efficiency and productivity in the workplace.

Descriptions of the HRD field have been further expanded to acknowledge relationships between business leaders, organizational context and HRD programs. Walton (1999) indicates that chief executive officers and top-level managers are driving forces behind many HRD programs. Business executives often use "mainstream strategy literature and thinking...to prepare and position human resources in the competitive marketplace" and are not concerned whether HRD professionals are included in the program or policy development processes that directly impact HRD programs (p. 7). The exclusion of HRD professionals throughout development of key HRD policy decisions can negatively impact the success of programs since the business leaders who developed the policies may lack knowledge of how individuals learn. Clearly, this situation provides an opportunity for HRD to learn from the adult education community.

The impact of mission statements and strategic plans that guide organizations cannot be overlooked when HRD program goals are discussed. Swanson and Arnold (1997) assert that HRD practitioners who operate in organizations are responsible for developing programs that directly support the overall mission and goals of the organization to whom they are ultimately accountable. According to Swanson and Arnold, adult learning programs developed within the context of organizations are the juncture where adult learning becomes HRD since the "rules and requirements of the organization" govern the HRD programs (p. 650). Again, HRD and adult education interface in the workplace.

Overall, the focus of HRD research includes issues related to individual development, career development, organizational development, strategic HRD plans, and other issues related to bottom-line business results. Common HRD research topics identified by Bierema and Cseh (2000) include: "integrity, globalization, teams, employee development, learning on-the-job, new technologies, transfer, evaluation, organizational change, training effectiveness, partnership research, and roles in HRD" (p. 141). The foundation of most HRD programs and research has been individual performance improvement within an organizational context.

Critiques of HRD Research

The emphasis of HRD programs and research driven by performance-based outcomes and bottom-line business results have generated lively debates between HRD professionals, feminists and adult educators. Cunningham (1992) argues that "learning for earning" has become a primary focus of North American adult education due to the

emphasis on "efficient and effective production" (p. 180). She refers to HRD as "the hand-maiden of industry serving it obediently by training human capital via HRD" (p. 181). To address the deficiencies of HRD, Cunningham suggests critical pedagogy as a framework that can equalize power relationships in the workplace by connecting "biography with social structures and the transformation of that structure to allow for more equal power relationships" (p. 186).

Others criticize HRD research by noting topics that are conspicuous by their absence from the traditional HRD research literature. Bierema and Cseh (2000) indicated that the field of HRD "has not progressed to addressing undiscussables related to gender and diversity...this silence only contributes to a discourse that marginalizes women... HRD needs to address workplace discourse and how it silences, teaches and oppresses humans" (p. 145). Reviews of HRD research indicate that business goals are the primary focus and issues related to women and marginalized groups do not comprise a significant portion of the HRD literature base.

Others challenge the human capital focus. Hart (1995) argued that the dominant discourse on work centers on human capital and demographic changes, which in her view "leave no room for optimism" since the new workforce that includes more women and other marginalized is characterized as having deficiencies in critical skills (p. 101).

Critiques of HRD have argued against the focus on bottom-line business results and criticized the field's lack of attention to diversity, sexism, racism and other forms of oppression. In spite of HRD's focus on performance-based business goals, HRD programs are frequently cut when fiscal resources are limited.

HRD Issues that Warrant Further Exploration

The HRD challenge to maintain adequate resources for programs raises questions that may warrant further research. Does the vulnerability of HRD programs in the business arena suggest that HRD is a marginalized activity? In many organizations, HRD has been positioned separate from "core business" units on the organization charts. Does the marginal status of HRD cause the field to struggle to gain acceptance and credibility within the organizational context? Does the HRD struggle cause some practitioners and theorists to align HRD with business objectives to gain strength and power for the HRD field? Are different strategies required for HRD to equalize power relationships in the workplace? Can HRD learn from feminists and adult educators concerned with workplace learning? These questions could provide a foundation for partnerships between HRD, feminists, and adult educators aspiring to improve workplace learning.

Excerpts from the Feminist Voice

Feminists approach HRD research from a different perspective than HRD researchers. Gender is a primary research construct for feminists and females are the focus of research (Tisdell, 1998). At the fundamental level, feminists "seek economic, social, and political equality between the sexes" (Bierema & Cseh, 2000, p. 142). Common themes that occur in feminist research include: knowledge construction; voice; authority and positionality (Maher & Tetreault, 1994).

Tisdell (1998) explained that feminist research has been conducted under psychological, structural, and post-structural conceptual frameworks. The psychological framework focuses on characteristics of the individual, female learner. Voice, knowledge construction and safety of the learning environment are themes that are addressed under the psychological model. Structural frameworks explore power relationships, as well as, systems of oppression and privilege based upon gender, class, race, and others that impact learning and the daily lives of individuals. Structural models also analyze the "politics of knowledge production in what gets passed on as "official" knowledge in the curriculum and who determines it" (p. 142). Lastly, the post-structural framework deconstructs the "dominant discourse, to lay bare its underlying assumptions" related to individual learners, as well as social, political and other structures that impact daily life (p. 145). The psychological, structural and post-structural feminist conceptual frameworks have been used to conduct and critique HRD research and practices.

Psychological Feminist Research Framework

The feminist psychological framework focuses on individual, female learners. Belenky, Clinchy, Goldberger, and Tarule (1997, rev. ed) applied the feminist psychological model to expand the breadth and depth of research by analyzing knowledge construction strategies of women.

Belenky, et al. (1997) identified five *"Ways of Knowing" (WWK) including Silence, Constructed Knowledge* and others. The authors recognized that most of the women interviewed did not see themselves as constructors of knowledge or capable of intellectual thought. Interview data also indicated that women wanted to be accepted and

respected as valuable contributors to the educational process rather than "being oppressed or patronized" (p. 196). The Belenky, et al. (1997) research could be used to inform HRD practitioners concerned with creating a learning environment that supports women.

In summary, psychological feminist research emphasizes the importance of "psychological and developmental emancipation of women as individuals" (Tisdell, 1998, p. 142)." The focus of psychological feminist research is the individual rather than social or organizational structures.

Critiques of Psychological Feminist Research Framework

The psychological feminist framework has been criticized for emphasizing the individual woman and not addressing issues related to race, social class and structures (Tisdell, 1998). Goldberger (1996) explained that the original *WWK* conceptual framework was "culture-bound" by the authors who shared some common life experiences. She reframed the Belenky, et al. (1997, revised ed.) *WWK* as different strategies that comprise an individual's repertoire of methods of making meaning. Goldberger addressed issues related to society and ethnicity that were not addressed by the original *WWK* framework.

Swanson and Arnold (1997) criticized psychologically oriented research focused on the individual and argued that "those on the learning side (focusing on individuals) of the debate are not so naïve to think that organizational goals and performance are irrelevant to HRD" (p. 650). The message seems to be that individuals working in organizations are not functioning in isolation from the system within which they work but must work in partnership with the organization. Consequently, focus on the individual without acknowledging the organizational context is inadequate in Swanson and Arnold's view.

Critiques of the psychologically oriented feminist framework focus on the lack of attention to race, social class, and structures that impact individuals. HRD researchers have also suggested that individuals do not work in isolation from the organization structures in which they work; therefore, psychologically oriented research is not complete. The critiques of feminist psychological research could be addressed through collaboration between HRD professionals, feminists, and adult educators who could inform each other on structural, feminist, and educational issues.

Structural Feminist Framework

Structural feminist research deals with power relations and interlocking systems of oppression based on gender, race, class, age, and other factors that are not addressed under the psychological feminist model (Tisdell, 1998). According to the structural model, education is related to sociocultural values, which may differ based upon class, gender, and race. In addition, the absence of women of all races from curriculum reproduces the societal systems of oppression that encourage subservience of women in educational situations and society in general (Tisdell, 1993).

Kanter (1993) utilized the structural feminist framework to describe the roles of men and women within large, complex organization structures. Kanter placed the responsibility for employee behavior on the organization structure that governs policies and procedures rather than on the employees. According to Kanter (1993), options are not "equally available" in organizations due to "...self-perpetuating cycles and inescapable dilemmas posed by the contingencies of social life" (p. 10). Overall, structural feminist models focus on "social structures or systems of oppression such as patriarchy or capitalism" (Tisdell, 1998, p. 142).

Critiques of the Structural Feminist Research Framework

The structural feminist models analyze the impact of structures on learning and knowledge construction. Due to a lack of emphasis on individuals, structural feminist models have received criticism. Structural feminist models prioritize gender but do not account for the individual's ability to have some control over one's decisions and actions within the organizational and social structures (Tisdell, 1998). Structural models also emphasize the importance of challenging power relationships but do not account for one's positionality within the organizational and social structures.

Poststructural/postmodernist Feminist Research Framework

Poststructural feminist research analyzes the interrelationships between individuals, power structures, social structures, positionality, social class, race, gender, and other factors. "Some authors use the term poststructural while others use postmodernism; for the purpose of this paper the terms will be used interchangeably" (Tisdell, 1998, p.

145). Tisdell (1998) explained the four primary elements of poststructural feminist conceptual framework. First, poststructural feminists "argue for the significance of gender with other structural systems of privilege and oppression...race, class, sexual orientation." Second, postructural feminism "problematizes the notion of "Truth." Third, poststructural feminists acknowledge the concept of "constantly shifting identity" and the idea that there is "not one Truth." Lastly, poststructural feminism "deconstructs categories and binary opposites such as white-black; heterosexual-homosexual; man-woman; and theory-practice...and rational-affective" (pp. 146-147).

Other authors have explained knowledge construction and power relationships addressed by the postmodernist models. Merriam and Caffarella (1999) explained that "postmodernism criticizes the modern conception of knowledge as a set of underlying principles that can explain behavior or phenomena across individuals or settings" (p. 349). Overall, the post-structural framework embraces multiple realities and multiple truths, which is different from a positivist framework that searches for one truth.

Goldberger (1996) utilized a poststructural feminist framework to expand the original *WWK* (Belenky, et al., 1997, revised ed.) research by interviewing bicultural women and men. According to Goldberger (1996), marginalized bicultural people are those who live "at the juncture between two cultures and can lay a claim to belonging to both cultures, either by being of mixed racial heritage or born in one culture and raised in a second" (Goldberger, p. 365).

Goldberger (1996) used information obtained during bicultural interviews to expand the *WWK silence(d)* concept (Belenky, et al., 1997, rev. ed.) by explaining the interrelationships between individual learners, political structures and social structure information. The multifaceted nature of the *silence(d) WWK* was highlighted during interviews with Native Americans and other indigenous people who explained the importance of understanding "when not to speak" in accordance with their cultural norms. Goldberger (1996) suggested that silence is not valued in the United States (U. S.) as it is valued in some other cultures, which may be linked to Triandis's (1989) explanation of the importance of silence in cultures that value social interconnections rather than individualism (Markus & Kitayama, 1991). The devaluation of silence in the U. S. can lead to misinterpretations of silence as an effective strategy for making meaning.

The *constructed knowledge WWK* (Belenky, et al., 1997, rev. ed.) was also expanded by Goldberger (1996). The bicultural interviews lead Goldberger to understand *constructed knowledge* as a way of making meaning that was flexible, contextual, relational, ethical and impacted by political and cultural forces. Goldberger explained that *constructed knowledge* involves the ability to assess situations and utilize the most effective strategy for making meaning based upon facts and circumstances of the context. The new description of *constructed knowledge* reflects the importance of social structures and political forces that were not addressed by the Belenky, et al. (1997, rev. ed.) original definition that focused on individuals.

Hayes (2000) also used a post-structural framework to explain women's learning, diversity and other workplace issues. Women were often hired for part-time positions that have less benefits and fewer training opportunities than men receive since many organizations still view women as temporary workers or the second wage-earner in the family. Hayes also explained some workplace strategies that catapult men to the top ranks of organizations may not be effective for women because these behaviors "conflict with the (concept of) feminine behavior" (p. 36). Further, Hayes explained the "subtle biases" of career counseling models that serve to keep women in lower status, less powerful professional positions.

Post-structural feminist research also addresses the issue of "positionality." The positionality of the instructor and of the students are considered key elements in classroom and other learning environments. For example, Tisdell (1993) indicated that students interact differently based upon the gender, race, social class, and other positional characteristics of the instructor. Workplace learning that involves employees, trainers, and managers is also impacted by the positionality of those involved in the process.

Overall, post-structural feminist research addresses a wide spectrum of interrelated, complex factors and accounts for issues raised by both the psychological and structural feminist paradigms. In addition, post-structural feminist research addresses issues such as positionality and multiculturalism that are prevalent in the global community.

Critiques of Post-structural/Postmodernist Feminist Framework

The poststructural feminist perspectives have caused controversial debates. Tisdell (1998) references feminist scholars, such as Hartsock (1987) and DiStefano (1990) who have raised questions and are leery of poststructural feminist ideas. DiStefano challenges poststructural feminists by questioning why "just at the moment in Western history when previously silenced populations have begun to speak for themselves and on behalf of their

subjectivities, that the concept of the subject and the possibility of discovering/ creating a liberating truth become suspect?" (as cited in Tisdell, 1998, p. 145).

Post-structural researchers could inform HRD professionals and feminists who focus on individuals or structures but do not integrate individuals, multiculturalism, or positionality with the structures. In general, the post-structural ideas have generated discourse and research that expands and critiques several literature bases.

A View through the Adult Education Lens

Adult educators, including Mezirow and Knowles, have approached adult education from a psychological viewpoint. Mezirow (1991, 1996) described a learner-focused transformative process of adult learning and explained that learners interpret experiences through "meaning perspectives" that Mezirow defines as "structures of assumptions within which past experience assimilates and transforms new experience" (1996, p. 42). Mezirow's focus on transformation has some similarities to the Belenky, et al. (1997) *WWK*; however, Belenky, et al. focused on affective and rational knowing and Mezirow favored rational knowing (Tisdell, 1998).

Knowles, Holton, & Swanson (1998) also utilized a psychological framework and explained the concept of andragogy in adult learning contexts. Andragogy involves a partnership between the adult learner and the facilitator to maximize the effectiveness of the educational experience. Key assumptions of the andragogical model include:

> "Adults need to know why they need to learn something before undertaking to learn it...adults come into the educational activity with both a greater volume and different quality of experience from youths...adults are life-centered...in their orientation to learning; and the most potent motivators are internal pressures...(pp. 62-63)."

The andragogical principles bear resemblance to the focus on the individual emphasized by Belenky, et al.; however, the *WWK* focuses on gender and andragogy is non-gender specific (Tisdell, 1998). Andragogy also plays a key role in effective HRD programs focused on individual development within the organizational context.

Freire (1993) utilized an emancipatory structural approach to adult education. Freire's work supported problem-posing education rather than the "banking concept," that involves the teacher providing deposits of information to the students who memorize the information without critical evaluation. Freire suggested that the "banking-concept" perpetuated systems of oppression in society by encouraging the oppressed to assimilate within the existing power structures that support domination by the oppressors. Freire viewed the problem-posing education model as a potential means of liberation of the oppressed, which could lead to transformation of power structures. The "problem posing" model could be used to inform HRD professionals and feminists who strive to develop an equitable work environment that maximizes satisfaction and opportunities for all employees. HRD is not limited to working within organization structures that oppress individual employees.

Collins (1995) referenced post-modernist issues in a passionate essay and highlighted problems with the professionalization of certain adult education efforts. In general, Collins disagreed with the alignment of HRD and "corporate ethos and the modern adult education practice" that in his view inhibit "men and women realizing the potential which resides in the collective competence they already possess" (pp. 87-88).

Adult educators view adult learning from various perspectives. Some adult educators focus on the needs and experiences of individual learners. Others focus on oppressive social structures that perpetuate unequal power relationships. In spite of the divergent views, common themes have been identified among the HRD, feminist and adult education literature bases.

Critiques of Adult Education Frameworks

Merriam and Caffarella (1999) summarize critiques of Knowles' and Mezirow's ideas. According to Merriam and Caffarella, "Knowles' reliance on humanistic psychology results in a picture of the individual learner as one who is autonomous, free and growth oriented. There is little or no awareness that the person is socially situated, and to some extent, the product of sociohistorical and cultural context of the times..." (p. 275). Critics of Mezirow's perspective transformation model indicate that "the extent to which the theory takes context into account; whether the theory relies too heavily on rationality; the place of social action; and the educator's role in facilitating transformative learning" are unresolved issues related to the model (p. 333). Critics of Knowles and Mezirow suggest that the focus on individuals and lack of focus on sociohistorical, cultural factors, and other issues are limitations of the models. These critiques are similar to criticisms of the feminist psychological framework.

Merriam and Caffarella (1999) summarized Ewert's (1982) critiques of Freire's ideas. According to Ewert: "Freire has been criticized by many for not coming to grips with the ethical implications of raising people's levels of consciousness through discussion of community problems. Few would now deny that defining problems in

structural terms is a political process...The responsibility for unleashing a process that can exceed controllable limits rests with the adult educator" (as cited in Merriam & Caffarella, 1999, p. 384).

Merriam and Caffarella (1999) argue that critical theory, such as the post-structural framework, is difficult to understand due to the complexity of the writings and that critical theory is difficult to operationalize for practice. The strength of critical theory is in its deconstruction of dominant structures of oppression; however, a weakness of the critical framework is the lack of operational strategies that can be implemented to improve the systems it critiques.

Opportunities for Collaboration and Implications for Future Research

HRD professionals, feminists and adult educators often operate in different spheres of higher education, business communities, and society; however, common interests between the fields have been identified. All three fields research issues related to individuals, organizations, and society but have criticized the focus, outcomes and motives of the other fields. Why do the three fields remain separate in spite of the fact that there are significant common interests between the fields? Have stereotypes and barriers developed between the fields of HRD, feminism, and adult education that inhibit research and practice across the conceptual frameworks of the three fields?

HRD professionals, feminists, and adult educators all strive to improve conditions in the workplace. The three fields also recognize the individual employee as a critical component of organizations and society. To improve the workplace, HRD seeks "congruence among the organization's structure, culture, processes and strategies" (Gilley & Eggland, 1989, p. 15) through organizational development interventions. Congruence as described by HRD could not be achieved without addressing issues related to gender equity, diversity, adult learning theory, and society that are raised by feminists and adult educators. Clearly, the fields of HRD, feminism, and adult education have common interests that provide a foundation for partnerships in research and practice.

Research provides some promise for bridging the disparate literature bases of HRD and adult education. Workplace learning projects and adult education strategies have linked the fields of HRD and adult education. Bierema (1997) argues that "adult educators and HRD professionals are uniquely equipped to research, design, and implement new models of workplace development" (p. 657). Swanson and Arnold (1997) also sought to reconcile differences between the fields of HRD and adult education by identifying common interests. The efforts to link adult education and HRD could be expanded to include links with feminist and critical adult education research bases.

Critical theorists, including feminists and adult educators, have problemetized workplace issues and criticized HRD for not effectively addressing issues such as sexism, diversity, and power relationships (Bierema & Cseh, 2000). Others have called for a "new formulation of work and vocation" (Cunningham, 1996, p. 157). The critical perspectives have identified key issues that negatively impact the workplace and HRD efforts. HRD professionals have much to learn from the critical perspectives.

In conclusion, HRD professionals, feminists, and adult educators seek to improve the workplace; however, the fields use different conceptual frameworks to address workplace issues. Continuation of the divisions between HRD professionals, feminists, and adult educators perpetuates the complex workplace problems the fields seek to resolve since narrow research perspectives are inadequate when addressing the complexities of the modern workplace. It is time to develop partnerships between HRD professionals, feminists, and adult educators to share information and build on common interests. The workplace provides many opportunities for partnerships between HRD professionals, feminists and adult educators to research and advance all three fields. Embracing the diversity of the HRD, feminist and adult education perspectives may be the first step to building collaborative efforts that can inform and advance the three areas.

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Research Paradigms in Human Resource Development: Competing Modes of Inquiry

Sujin Kim
University of Minnesota

The debate over whether a dominant paradigm is appropriate for the rapidly evolving Human Resource Development (HRD) has resulted in significant discord among researchers within the field. This critical issue paper compares and contrasts three of the most widely utilized research methodologies in the field, with respect to their strengths and weaknesses. It argues that in many cases, the taxonomy of positivistic research should be employed as the central methodology in investigating HRD issues.

Keywords: Human Resource Development Research, Positivism, Research Methodologies

The Longman dictionary (1995) defines research as, "the studious study of a subject, that is intended to discover new facts or test new ideas; the activity of finding information about something that one is interested in or need to know about." (p.1205) As the definition implies, in the strenuous journey to knowledge, researcher and scholars have developed and employed various research methodologies to guide them through the right course of knowledge seeking. From the research perspective of Human Resource Development (HRD), three major research methodologies, positivism, interpretivism, and critical science, have been widely discussed and utilized within the discipline.

Problem Statement and Research Questions

The debate over whether a single research paradigm should be employed as a common standard in Human Resource Development (HRD) research has caused persistent and vexing discord among researchers within the field (Marsick, 1990, Ruona, 2000; Watkins, 1991). Although such disagreement can provide the basis for healthy scrutiny for advancing theory and practice in the field, the lack of common methodology in the HRD literature frequently results in confusion and tension with respect to findings that emerge from ongoing research endeavors in the field (Kuchinke, 2000; Lynham, 2000; McGoldbrick, Stewart, & Watson, 2001). Some argue in favor of widely divergent HRD research methodologies since there is no general research framework to examine and measure the multifaceted, transient, and contingent HRD issues that affect modern organizations (McGoldbrick, Stewart, & Watson, 2001). However, because the applied realm of HRD is performance and outcome-oriented, the taxonomy of positivism can best serve these ends through its ability to elicit explanation, control, and prediction.

In the hopes of reducing some of the contention in the field, this critical issue paper explores the advantages and disadvantages of positivistic methodology and argues in favor of utilizing it as the principal mode of inquiry in the field. However, it is also suggested that the use of positivism should not be mutually exclusive with respect to other existing HRD research methodologies. Both researchers and practitioners should be mindful of the benefits that can flow from the mix and application of tools provided by the other paradigms as a means of increasing the utility of research.

The central research questions guiding this critical issue analysis paper are as follows:

1) Which research methodology is best suited for HRD research?
2) What are the strengths and weaknesses of each research paradigm?
3) What responsibilities should researchers assume to better serve the needs of HRD community?

Methodology

Based on the examination of literature review, this critical issue paper provides an analysis of the three widely utilized research methodologies, positivism, interpretivism, and critical science, in the HRD field. Particularly, the paradigm of positivism, which has been a central mode in social science research, is compared to and weighed against the other two methodologies with an emphasis of their philosophical origins, assumptions, concepts, and HRD implications.

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Conceptual Framework for Three Research Methodologies

Positivism is based on the assumption that there are universal laws that govern social events, and uncovering these laws enables researchers to describe, predict, and control social phenomena (Wardlow, 1989). Interpretive research, in contrast, seeks to understand values, beliefs, and meanings of social phenomena, thereby obtaining *verstehen* (a deep and sympathetic understanding) of human cultural activities and experiences (Smith & Heshusius, 1986). Critical science seeks to explain social inequities, through which individuals can take actions to change injustices (Comstock, 1982). The three approaches take distinctively different epistemological positions regarding theoretical foundations, assumptions, and purposes while producing competing modes of inquiry.

Historical and Philosophical Origins of Positivism

The discussions on the positivistic paradigm of research originated in the nineteenth century with an attempt to apply the methodology used by the natural sciences into social phenomena (Smith, 1983). In 1822, the French philosopher Auguste Comte first created the term, "sociologie" and further classified social interactions as physical science-like phenomena in order to investigate and find their universally governing rules (Babbie, 1993). Prior to this time, religious taxonomies were prevalent in investigating and explaining social phenomena, and Comte attempted to replace religious beliefs with scientific objectivity and empirical inquiry by arguing that the human world can be detached and analyzed in an objective way. Comte's positive philosophy postulated three stages of history. First, a "theological stage," emphasized a monotheistic God and predominated throughout the world until about 1300. Second, a "metaphysical stage " replaced the concept of God with philosophical notions during the next five hundred years. Last, Comte's final stage was the era of positivism, in which knowledge was based on scientific objectivity and observation through the five senses rather than subjective beliefs. This revolutionary view of the social world as science-like phenomena with empirical investigation formed much of the fundamental driving force for the development of the positivistic approach (Babbie, 1993).

Before examining the major assumptions of positivism, it is necessary to elucidate the philosophical influences of scientific realism in positivism as the approach was rooted in the idea of scientific realism (Smith & Heshusius, 1986). The paradigm of scientific realism asserts that the kinds of things which exist, and what they are like, are independent of us and the way in which we discover them (Routledge Encyclopedia of Philosophy, 1998). In examining reality, scientific realism further delineates the concept of subject-object dualism; an ontological question of "what is" can be kept apart from an epistemological question about how one comes to know "what is" (Smith, 1983). Positivism is essentially derived from Comte's philosophical foundations that social reality exists independent of people and can be objectively investigated by employing valid and reliable measurements.

Major Assumptions of Positivism

The assumptions reflected in positivistic research are based on the notion of a mind-independent reality (Popkewitz, 1980). Researchers employing positivistic research inherently recognize the following as primary assumptions that are intrinsic to the positivistic mode of inquiry (Wardlow, 1989, p.3):

1. The physical world and social events are analogous in that one can study social phenomena as they do physical phenomena.
2. Theory is universal and sets of principles and inferences can describe human behavior and phenomena across individuals and settings.
3. In examining social events, researchers adhere to subject-object dualism in that they stand apart from their research subjects and treat them as having an independent existence.
4. There is a need to formalize knowledge using theories and variables that are operationally distinct from each other and defined accordingly.
5. Hypotheses about principles of theories are tested by the quantification of observations and by the use of statistical analyses.

Essential Concepts Reflected in Positivism

Positivism asserts that knowledge and truth are questions of correspondence in that they relate to an external referent reality (Smith, 1993). This correspondence theory of truth stipulates that the source of truth is in reality; therefore, a statement is proved to be true if it agrees with an independently existing reality and false if it does not. For example, if two or more statements regarding the same external referent reality compete with one another, then

researchers must make a decision to accept one and reject the other, or even to reject both in favor of another alternative (Smith, 1983). Furthermore, researchers should employ empirical methods for the process of verification because these methods are considered objective and do not influence what is being investigated. In the process of investigation, researchers should express themselves in value-neutral, scientific language in order to move beyond ordinary and subjective descriptions, thereby resulting in universal and accurate statements and laws about the world. In doing so, knowledge attained about the independent reality can be accepted by reasonable people (Smith, 1983).

In the positivistic tradition, empirical methods are so essential that true or genuine knowledge is regarded as strongly tied to the application of the proper procedures (Babbie, 1993; Walker & Evers, 1999). Empirical methods specify how the rational structure of scientific investigations is formulated and tested. For example, researchers generally begin by noticing a new pattern or inconsistency with established theories and posing the preliminary finding as a problem to be investigated. After further exploration, researchers propose a hypothesis in which they deduce predictions. As a rule, they test the predictions and present the hypothesis as genuine knowledge if it is confirmed as valid. If the hypothesis is rejected, researchers usually alter the previous hypothesis, or develop another, and repeat the procedure. This process is self-corrective and by examining incorrect hypotheses, researchers narrow the search for a correct one (Borg & Gall, 1996). Such methodologically generated knowledge, as it is thought to constitute an accurate description of reality, becomes accepted as truth through this rigorous empirical verification process.

One of the major goals of research using positivism in HRD settings is to obtain valid and reliable knowledge as a set of universal principles that can explain, predict, and control human behaviors across individuals and organizations. In the positivist's perspective, validity means that findings are accurate statements about the world as it is without researcher's involvement, and knowledge is a matter of replication (Walker & Evans, 1999). If a particular instrument or a technique is applied repeatedly to the phenomenon of interest, it would yield a similar, if not the same, result over time. Therefore, what is discovered through valid and reliable instruments and techniques is considered public knowledge because others can replicate the findings by employing the same instruments and methods while reducing the potential consequences stemming from researchers' personal values and biases (Smith, 1983).

Competing Views of Positivism: Interpretivism and Critical Science

HRD researchers employing interpretivism often question the positivist's belief of the mind-independent reality. To interpretive researchers, reality (at least organizational and social realities) is something constructed with the individual mind as a product of theorizing, and this individual theorizing itself shapes and affects reality; there is no mind-independent reality to correspond with hypotheses to serve as an external referent point on their acceptability (Walker & Evers, 1999). Knowledge is then mu ltiple sets of interpretations that are part of the social and cultural context in which it occurs. Consequently, there should be an openness to the understanding of people whom researchers study and tentativeness in the way researchers hold or apply their conceptions of those being studied (Giorgi, 1997; Husen, 1999; van Manen, 1998).

Yet, the very contextual and subjective nature of interpretative research findings can be a concern for HRD researchers who seek to generalize the results to different organizational and educational settings: what is true in one situation or context may not be true for another. Conducting interpretative research can also be costly due to extended research time. For example, to conduct an ethnographic study of a supervisor-employee behavior of a particular immigrant group, a great deal of time is needed to observe, describe, and understand the complex and value-laden immigrant's business culture and their idiosyncratic way of interactions. A replication of the original research as well as reaching inter-subjective agreement on the findings can be an arduous and time -consuming task.

In interpretive research, as researchers' views are acknowledged and often reflected in the research process, their personal subjectivity may inherently affect the soundness of research findings (Babbie, 1993). Therefore, it is a crucial yet difficult task for interpretive researchers to bracket their preexisting ideas of the phenomena and further assume a moral responsibility to accurately represent subjects and contexts. In addition to the difficulty of achieving this goal, analyzing and articulating complex human phenomena are rigorous tasks that require years of training and research experience. It is thus imperative that HRD researchers posses adequate skills and observational techniques to conduct interpretive research as well as a sense of moral responsibility.

Critical scientists go one step further in their philosophical opposition to the value-neutrality of positivism by arguing that researchers should take a stance and share responsibility for social changes (Comstock, 1982). Critical scientists maintain that the positivistic tradition cannot capture the critical roles of values in knowledge that are needed to improve human conditions (Comstock, 1982). They also point out that the positivistic tradition generally

neglects the realities of power, ideological beliefs, and social inequities frequently manifested in HRD research (Rettig, Tam, & Yellowthunder, 1995). For example, critical scientists can question the validity of popular HRD beliefs representing the efficacy of employee empowerment in organizations. They can attack the notion by questioning whether companies genuinely care about empowering employees to promote their potentials with humanistic motives or if they simply give out some fraction of their power to tantalize employees while holding tight control of their stakes. In criticizing the notion of "employee empowerment," critical scientists may argue that "empowerment," "employee voice," and "open communication" can be simply the reintroduction of a power struggle between management and employees, in which management grants a small faction of power to the employees. The employees, viewed as oppressed, are not truly emancipating themselves; rather, they are merely disillusioned by the management's empowering tactics whose aim is to solidify control over the employees. In addition, the organizational setting may not be a safe place for the employees to speak out their experiences or opinions due to the fear of coercion and/or a sense of vulnerability of revealing too much in public.

The major disadvantage of employing critical science in HRD research is that the researcher's involvement, interaction, and activities during the research process are substantially political as well as time intensive in that the approach often fails to facilitate scholarly writing (Fay, 1987). The critical science approach also advocates a process of research that yields social change rather than a product of research that is closely linked to knowledge generation and subsequent academic publication. Thus, while emancipatory knowledge can be produced by employing critical science, it might not be readily transformed into academic publication due to the lack of understanding and acceptance of the approach among scholars and the time-consuming nature of the research process (Rettig, Tam, & Yellowthunder, 1995).

Finally, as critical science primarily focuses on issues regarding groups of individuals, it is practically impossible to conduct critical science research without a team effort (Rettig, Tam, & Yellowthunder, 1995). As the success of critical research heavily relies on the continuous commitment of the groups for a substantial amount of time, soliciting team efforts to carry out research can be a difficult and exhaustive process that critical scientists must cope with. The uncertainty of research outcomes and finding source for funding are often problematic in critical science as well (Fay, 1987).

Reasons for the Prevalence of Positivism in the Research Community

In light of positivism's relation to business and educational institutions, certain goals in the field of HRD are highly compatible with positivistic applications. Employees' performance improvement after HRD interventions, effects of training programs on levels of organizational commitment, and minimal competency testing for job applicants are a few of HRD examples that rely on measurable and generalizable instruments of the positivistic approach. As a result, these HRD goals align well with positivism due to their implicit orientation towards prediction and control. Since positivistic knowledge seeks to find how change in one variable will produce change in another, also known as causal relationships, it facilitates the attempt to get more output for one's input that is the practical concern of HRD practitioners (Swanson, 1995).

The correlational design of positivism can be useful in studying issues relevant to the HRD field as its principal advantage is to permit one to analyze the relationships among a large number of variables in a single study (Fanslow, 1989). In HRD settings, there are often situations in which several variables are related to a particular pattern of behavior. When a researcher wants to investigate the factors correlated with the level of organizational commitment, there are more likely to be multiple variables affecting one's commitment, such as education and income levels, supervisor-subordinate interactions, and perceived equity regarding pay and treatment (Brett, Cron, & Slocum, 1995). By employing the correlational design, researchers can determine whether there are relationships between these variables and the level of organizational commitment, control for potential confounding factors, and further measure the directions and degrees of these relationships. The correlational design is thus an invaluable research tool in HRD as it allows researchers to analyze the relationships among multiple variables, either individually or in combination, by identifying the direction and degree of associations among them (Pirsig, 1997; Borg & Gall, 1996).

There are several issues to be addressed prior to conducting research in HRD. One of the crucial questions that HRD researchers should ask prior to initiating their investigation is whether the findings are genuinely relevant and likely to be beneficial to participating organization members as well as the HRD field. In other words, researchers and practitioners should be concerned with the potential utility of research findings, with respect to tangible, positive, long-term returns for organizations and contribution of knowledge advance to the research community (Alan, 1997; Scheirer & Rezmovic, 1983; Swanson, 1992). The research must be also designed to obtain findings that can be generalized and applied beyond the situation in which the study was initially carried out. Employing the

positivistic approach in HRD settings can be then recommended for its strong tendency to produce applicable knowledge that is externally valid.

Another important aspect of positivism in HRD research is that the approach facilitates the refinement, and even negation, of existing theories by challenging and questioning them for more refined applications rather than dwelling on the antecedents of previous research (Moser, Mulder, & Trout, 1998). Moser and colleagues (1998) pointed out that researchers can sometimes become the victims of dogmatism by failing to recognize their fallibility. In positivism, research hypotheses are generally deduced from findings of established theories, and subsequent findings contribute and extend the general body of knowledge. In the process of inquiry, researchers might capture the inconsistency between the existing theories and their own hypotheses and thus challenge the previously accepted ideas to resolve disagreements. Factors that have not been adequately addressed in previous research can be further pursued. The approach then promotes a healthy and rigorous measure of cultivating knowledge by raising questions and making investigators aware of the validity of their hypotheses (Pirsig, 1997).

Empirically grounded methods in positivism also serve as a "reality check" to reduce researchers' biases and values which can potentially contaminate the research process and subsequent discoveries (Smith, 1993). As interpretive researchers point out, perception, experience, and socio-cultural background affect how each individual sees the world in everyday situations. At the level of everyday dscourse and experience, it is difficult for researchers, as individuals embracing all socio-cultural aspects in formulating their views, to discard their personal values and beliefs in conducting research. Instead of denying the presence of these biases, positivistic researchers call upon proven empirical methods in an attempt to minimize the distorting effects of their subjectivity in investigation. The empirical procedures are available to the inquirer prior to engaging in the process of inquiry and thus tend to be neutral and independent of the process (Smith & Heshusius, 1986). In addition, the knowledge produced through these procedures can and should be replicated by anyone who adheres to the same method. The positivistic mode of inquiry thus provides a self-corrective mechanism that checks the credibility of data and minimizes the distorting effect of personal subjectivity on the generation of knowledge.

Critical scientists criticize positivistic researchers on the grounds that they lack or even dismiss the realities of value-laden policy making processes embedded in society. Yet, impacts of research findings on policy implications have been increasingly addressed by the positivistic arena by utilizing evaluation research (Babbie, 1993). The purpose of evaluation research is to measure the impact of policy interventions, such as new training methods, innovation in workplace technology, and a wide variety of HRD programs to ensure that there is a nexus between research findings and practical applications (Alan, 1997). While in critical science, research serves to produce emancipatory knowledge which empowers individuals to take action to correct injustice prevalent in the system, an empirically-grounded positivism, the goal of evaluation research is practical interest to assess the effectiveness and efficiency of interventions. The current expansion of evaluation research among positivistic researchers reflects their increasing awareness to ensure feasibility and utility of interventions formulated from research in the applied domains of HRD (Borg & Gall, 1996).

Discussion and Conclusion

Positivism has been a dominant mode of inquiry in numerous research arenas of social science for over a century (Wardlow, 1989). Since Comte's utilization of positivism in social science in the nineteenth century, there was a major progress in social and educational research at universities and research institutions with the refinement of the methodology and statistical analyses. As a result, positivism became the dominant research methodology and its prevailing methods and techniques were utilized by cross-disciplinary researchers until the mid-1960s (Husen, 1999). During the social movements in the sixties, critics of positivism began to doubt its merits and legitimacy (Banks, 1998; Code, 1991). Critical scientists argued that institutionalized theories and paradigms considered neutral often favor the mainstream population and consequently neglect marginalized communities. Likewise, interpretive researchers criticized positivism by stressing that what is needed in the multi-ethnic society is respect and understanding of others' unique socio-cultural contexts (Banks, 1998). As a result of this conflict among researchers, the present situation in the research community is a standoff among the three approaches, often manifested as a heated debate between "hard" and "soft" or "quantitative" or "qualitative."(Bredo & Feinberg, 1982; Code, 1991).

With respect to the current debate over research paradigms, this paper has examined and assessed the three most widely used research methodologies in the HRD discipline: Positivism, Interpretivism and Critical Science. In doing so, it has found that each approach has its own unique advantages that promulgate valuable knowledge and augment the literature in the science of HRD. However, it has been also demonstrated that the relationships among the three approaches are generally not synergistic in nature, as the underlying theoretical and epistemological rationale of

each is frequently at odds with those of the others. Indeed, as each of these paradigms has their own set of advocates, the consequences have been a fractionalization among researchers in the field, disagreement over the interpretations of findings and a lack of unity with respect to the direction that future research should pursue. The solution to the dogmatism that has created this unfortunate state of affairs is not easily redressed through compromise, as the construction of approaches that attempts to formulate methods based on a synthesis of the approaches are vulnerable to discounting the inherent advantages of each. Yet, it should also be noted that the three methodologies are not necessarily incompatible within the HRD domain, and both the circumstances and question of study to be addressed should be viewed as mitigating factors in deciding which methodology should be applied.

Nevertheless, after examining the merits and shortcomings of each, this endeavor has led to the conclusion that the HRD field would greatly benefit by adopting an emphasis of positivism as the principal research approach. Because of the fundamental premises that underlie positivism, specifically the requirements that the development and testing of hypotheses be conducted in a manner that are both quantifiable and able to be replicated, the subsequent findings would be less prone to error introduced by investigator subjectivity and hence more widely accepted. Moreover, the empirical procedures used in the positivistic tradition are best able to assess and develop practical organizational interventions relative to the outcomes produced by the interpretive and critical science paradigms. This is not to say that the shortcomings of positivism as articulated by proponents of the interpretive and critical science taxonomies should be ignored; in fact, for the positivistic approach to be truly valuable, its potential disadvantages must be recognized and addressed.

One caveat that should be clearly noted is that while this paper strongly advocates the adoption of positivism as the central research approach in the HRD field, it does not contend that the paradigms of interpretivism and critical science should be abandoned. Both provide the field with substantial value, the former through its attention to understanding the individual experience and the latter to encouraging emancipation and self-development. The incorporation of both of these methodologies within the HRD domain would allow the field to be more holistic in its understanding and conceptualization of human behavior and development. On the other hand, to equate these paradigms as research methodologies on parity with positivism would subjugate the HRD field to the continued discord that aptly defines its current state. To this end, a movement towards an emphasis on positivistic research would significantly improve the field as a whole.

Implications for HRD: Establishing a Methodological Framework for the Advancement of HRD Theory and Practice.

As HRD is a young yet burgeoning field, the ability of researchers to advance knowledge and contribute research to the general business community is essential. More than a few scholars have recognized that there is an integrated relationship between scientific research and HRD practices (Alan, 1997; Kling, 1995; Scheirer & Rezmovic, 1983; Schneider & Konz, 1989; Swanson, 1992). Because research is the fundamental cornerstone on which sound theory becomes transformed into effective organizational practice, and further, the element on which HRD derives its inter-disciplinary credibility, it is of the utmost importance that the methodological foundation on which the research is based is both sound and rigorous. Increasing the emphasis on using positivistic research techniques is then both a viable and necessary means for HRD to achieve the dual goals of developing effective practical business practices and establishing itself as a strategically essential academic business domain. The established and widely accepted techniques of positivism have proven to be significant conduits to meeting these ends in other business disciplines, and the extension of the same criteria and standards to HRD can thus substantially forward these aims. By placing increased value on studies which use positivistic methodology in carrying out future HRD research, encouragement of such studies through the publication of those research endeavors in the academic literature, and dissemination of the findings in the form of strategic business interventions, the field would benefit from a unification of such standards.

At the same time, HRD research should continue to value those works that utilize interpretive and critical science approaches. If anything, the use of these approaches differentiates HRD from traditional business research, and their contributions enrich the understanding of cultural and individual perspectives and address important areas that are often overlooked in these domains when positivistic research is exclusively used as an instrument of research. HRD should continue to forward and encourage the use of such methodologies. The essential change that is advocated in this work is for a shift in the prioritization of these methodologies, with the positivistic framework emerging as the principal research paradigm of choice within the field. Realistically, such change will not be quick or forthcoming, as many in the field strongly hold viewpoints that disagree with this perspective. The important point is that vigorous debate should be encouraged with some consensus realized from ensuing dialogue. Such

agreement would act to strengthen the field and enhance the future impact of HRD research output with respect to both businesses and the community which are the true beneficiaries from such work.

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Mixed methods use in HRD and AE

Tonette S. Rocco
Linda Bliss
Sue Gallagher
Aixa Perez-Prado
Florida International University

Mixed methods combine qualitative and quantitative approaches at different phases in the research process such as conceptualization, sample, data collection, data analysis and inference while mixed model designs combine these approaches across all phases (Tashakkori & Teddlie, 1998). This paper explores how mixed methods are approached in HRD and adult education. Little explicit discussion of research design decision-making or theoretical support for mixing design components was found in the examples used in this paper.

Key words: Mixed methods, Research Design, Qualitative and Quantitative Studies

This paper provides a discussion of the ways in which mixed methods are approached in HRD and adult education (AE). Mixed methods combine qualitative and quantitative approaches at different phases in the research process such as conceptualization, sample, data collection, data analysis and inference while mixed model designs combine these approaches across all phases (Tashakkori & Teddlie, 1998). The exploration in this paper is driven by these questions: What rationales do HRD/AE researchers provide for using mixed methods in their projects? In the absence of explicit rationales, what justifications are evident for using mixed methods? The paper is divided into a discussion of mixed methods, the use of mixed methods in HRD, and the use of mixed methods in AE. The paper concludes by sharing implications for HRD/AE, observations, and suggestions to enhance mixed methods use.

Mixed Methods

Greene and Caracelli (1997) argue that "using multiple and diverse methods is a good idea, but is not automatically good science" (p. 5). Mixed methods proponents across the wide field of education share the goal of conducting good social science. Good research design addresses the intertwined political, philosophical, and technical levels of decision-making (Greene & Caracelli, 1997). At the political level decisions are made about values, purpose and place of a study within society. At the philosophical level paradigms and assumptions are identified. The technical level encompasses the procedures used to collect and analyze data.

At the political level broad value based questions about the purpose and role of research in society are addressed (Greene & Caracelli, 1997). At this level, choices are made regarding what should be researched and what should be done with the research. Scholars do not generally acknowledge the power structure within which they make their research design decisions. Mainstream discourse in HRD/AE research seldom explicitly provides evidence of political level decision-making. Although not explicit, political level decision-making is evident in regards to what research gets funded.

At the philosophical level, mixed methods are predicated on reaping the benefits of what can legitimately be learned about the social world using appropriate methods from multiple paradigms. The *pragmatic position* for such mixing, calls for answering all methodological questions according to which method(s) best meet the practical demands of a particular inquiry (Patton, 1988). The *dialectical position* advocated by Greene and Caracelli calls for conducting inquiry that is shaped by employing both post positivist and constructivist paradigms. If, in a research project, issues such as particularity and generality are addressed from within each of these paradigms, then in the end, more can be known about both specific participants and the larger social context they share with others. Such research will better reflect social realities by including more perspectives.

Technical level concerns were addressed in detail in Greene, Caracelli and Graham's (1989) empirically based theoretical framework for conducting rigorous, useful evaluation projects. Their framework has five distinct purposes: triangulation, complementarity, development, initiation, and expansion. The first purpose, *triangulation,*

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strives to develop a more focused understanding of a particular phenomenon through convergence of different methods examining the same phenomenon. Triangulation increases construct and inquiry result validity by using both qualitative and quantitative methods to counteract researcher, method, theoretical and other possible research biases. *Complementarity* seeks elaboration using the results from one data collection method to help clarify the results of the other. Generally, different aspects or levels of a phenomenon are examined. Complementarity enhances validity and interpretability by building on inherent method strengths and acting against method and other research biases. *Development* is sequential using the results of one of the methods in order to inform the other(s). The phenomenon under study may be the same, or similar. Development builds on inherent method strengths in order to increase construct and inquiry validity. *Initiation* may evolve as the study progresses, when findings of qualitative and quantitative methods seem contradictory, or be planned into the research design. Initiation deepens the inquiry, often by recasting the research question and thus developing a fresh perspective. Phenomena may be studied in order to better understand the phenomenon originally under study. Unlike any of the other purposes, initiation encourages inquiry using differing paradigms and perspectives in order to deepen and widen inquiry results and interpretations. *Expansion* widens the scope of the inquiry by adding multiple components to a single study allowing for investigation of a broad range of phenomena and using differing qualitative and quantitative methods. The rationale for selecting multiple appropriate methods is to extend the inquiry.

Individuals' pragmatic decisions to mix qualitative and quantitative methods either sequentially or simultaneously within their research projects are leading to a number of "mixed method" studies, although, this label is not always applied in HRD/AE research. Tashakkori and Teddlie (1998) are prominent among those social scientists calling for more clarity in delineating the characteristics of these studies, and of employing more qualitatively/quantitatively integrated "mixed model" studies. Their underlying philosophical assumption is that these two practices will enhance the quality of educational research and make it more accurate and useful.

Addressing technical level concerns in detail, Tashakkori and Teddlie's (1998) mixed models typology is driven by its exploratory or confirmatory purpose. Model designations are based on the particular qualitative and/or quantitative nature of research components or stages. They identify three especially relevant stages: data collection, analysis, and inference. Three types begin with quantitative data (Types III, V, and VI) and three types with qualitative data (Types I, II, and IV). Types I, II, and V are more confirmatory and deductive in inference - testing *a priori* predictions or hypotheses. Types III, IV and VI are more inductive and exploratory. Two larger scale mixed model types may have both exploratory and confirmatory phases. Type VII *parallel mixed model* studies mix qualitative and quantitative within at least one of the stages. In Type VIII *sequential mixed model* studies, the three relevant stages are completed in distinct phases. One phase builds on the results of the last and mixing occurs across phases.

For these pragmatists when to mix and what roles the researcher can and should play in his or her research project should be informed by two considerations: general pragmatic guidelines and the research question. According to Tashakkori and Teddlie (1998), the guidelines value *both* inductive and deductive reasoning and *both* objective and subjective points of view. Decisions about which line of reasoning is called for depend on the specific point in the research process. For pragmatists, decisions about when to be inductive and collect more data to see what generalizations may be drawn from them or when to be deductive and ascertain if a particular piece of data fits a known generalization are ongoing in a research project. Pragmatic educational researchers are comfortable turning to qualitative methods to explore phenomena and to propose some level of generalization (i.e. these are patterns in the data) and quantitative methods to confirm that these particular pieces of data do indeed fit some known pattern/generalization. There is recognition among such researchers that any particular research project may well involve both paths of reasoning in order to fully respond to the research question.

After being introduced to the mixed methods literature, the question became how do HRD and Adult Education researchers use qualitative and quantitative methods in the same study? HRD literature was reviewed searching for references to mixed methods the few found are discussed below. A snapshot of the use of mixed methods in HRD research is provided by examining articles published in volume 11 of HRDQ for instances of mixing methods.

Use of Mixed Methods in Human Resource Development

Human resource development is an applied field primarily concerned with identifying and implementing interventions in the workplace. Interventions can occur at individual, group, and organizational levels to increase workplace learning and productivity. In human resource development mixed methods studies are rarely supported by literature from the mixed methods field. This lack of acknowledgement extends to meta analyses of research practice. For example, Williams (2001) conducted a review of research methods to determine if the field of human resource development (HRD) was following a similar developmental pattern to management science. Even though

she clearly states an interest in statistical methods only, her analysis notes the use of qualitative methods. Strikingly, there is no mention of mixed methods. Hixon and McClernon (1999) examined a wide range of HRD literature published in 1997, classifying the literature by using four types of research and "two tools (i.e., qualitative and quantitative)" (p. 899). Hixon and McClernon placed all of the articles and papers in two categories--qualitative or quantitative and ignored the possibility of a category of mixed methods.

Hardy (1999) examined the methodological appropriateness of papers presented at the 1997 and 1998 Academy of Human Resource Development conference. After setting the stage for the inclusion of mixed method studies through his discussion of hybrid designs, his findings are only discussed in terms of the dichotomy of qualitative/quantitative categories instead of the continuum possible when using hybrid designs or mixed methods.

He states that qualitative and quantitative methods "are not mutually exclusive but can be viewed as inter-dependent" (p. 880). For Hardy, the role of qualitative methods is to develop new theory, expand conceptual frameworks, and enhance understanding of social realities while quantitative methods should be used to test and generalize theory. The qualitative/quantitative linkage though a "hybrid" [mixed] design demonstrates the interactivity and inter-dependence of these components of reflective inquiry. Hybrid designs utilize the strengths of both types and "can supplement and compliment the strength of design and general robustness of the findings" (Hardy, 1999, p. 881). He states the ultimate usefulness of hybrid designs is dependent on the comparative relationships of the results, conclusions, and contributions to the field, yet he advocates only the use of multivariate studies to mature the field.

These reviews revealed that a general lack of awareness of mixed methods and the literature base that supports it are common in the field of HRD. In a related example, in the HRD research handbook there is no mention of mixed methods (Swanson & Holton, 1997). The chapter on qualitative methods includes a discussion of appropriate uses of qualitative methods as explaining statistical findings, developing quantitative instruments, and strengthening quantitative studies (Swanson, Watkins, and Marsick, 1997). These technical uses for mixing methods are not explored. The chapter on quantitative methods is not concerned with the appropriate use of quantitative methods but does mention that both methods (qualitative and quantitative) are powerful when used together (Holton & Burnett, 1997). Political, philosophical, and technical rationales (Greene & Caracelli, 1997) for using mixed methods are missing from the research inquiry literature of HRD. The research studies discussed in this segment include two papers using mixed methods literature and four articles using mixed methods without regard to the literature.

May (1999) and Nurmi (1999) used the mixed methods literature to support their research design decisions. May (1999) advocated using qualitative methods in transfer of training research. The study developed and tested a theory-based practice protocol and its effect on learning and transfer of learning. The quantitative component included a pretest-posttest control group design. Data on dependent measures were collected using a free-recall test, rating videotaped role-plays using a criterion checklist, and a 360-degree survey instrument. ANCOVA conducted on each dependent measure indicated significant difference between groups. Learning in both groups did not meet acceptable levels in terms of practical significance. The qualitative component included semi structured interviews of 36 of the 38 participants. The responses were coded and categorized according to underlying concepts. May's purpose was to use the qualitative data to "illuminate quantitative data" (1999, p. 1108) and to use this study to support the pragmatic approach when making methodological decisions. Using Tashakkori and Teddlie's model (1998) this study is Type VIII - a sequential mixed method - the quantitative and qualitative data collection and analysis phases appear separate. The decision-making about research design appears to be at the technical level (Greene & Caracelli, 1997).

Nurmi (1999) used mixed methods to evaluate an industrial development program in Finland. The research design decision-making is philosophically based using Greene & Caracelli (1997) (among others) to support mixing paradigms as well as methods. Nurmi writes, "these paradigms were seen as complementary choices rather than competing methodological schools" (p. 554). An HRD program for new hires in a paper mill was evaluated using post positivist quantitative surveys and multivariate analysis and naturalistic methods such as interviews and journals. Nurmi's study demonstrated complementarity (Greene, Caracelli, & Graham, 1989) and consciously used mixed methods "to reach a deeper understanding" (p. 556).

Wentling and Palma-Rivas (2000) surveyed multinational organizations on the status of diversity initiatives, the dimensions of the initiatives, and the dynamics of corporate responses. Data collection used semi-structured interviews and document analysis with a sample of 8 randomly selected diversity managers. Interviews were content analyzed with emergent themes ranked by their frequency. Wentling and Palma-Rivas used quantitative data "to provide basic research evidence, while qualitative data were used to round out the picture and provide examples" (p. 40). Qualitative data were used for statistical inference as in a Type IV design (Tashakkori & Teddlie, 1998)

Stein, Rocco, and Goldenetz (2000) conducted an instrumental case study using the embedded single-case study design to examine the phenomenon of aging workers in a university setting. Qualitative and quantitative data were

collected. Structured interviews were used to enhance descriptive statistics obtained from documents produced and maintained by the human resource and training departments. Without mention to the mixed methods literature, the authors identified triangulation as the rationale for using quantitative and qualitative data sources (Patton, 1990; Yin, 1994). Data analysis used two qualitative methods: grounded theory and comparative analysis by question.

Osman-Gani (2000) explored issues of expatriate development by multinational companies. Mixed methods were used for instrument refinement. Responses to an open-ended interview schedule based on the expatriate literature were used to develop a structured survey instrument. This is an example of development (Greene, Caracelli and Graham, 1989) where the results of the open-ended interview schedule were used to develop a structured survey instrument. A panel of experts also reviewed the survey "to verify the content, sequence, structure, and relevance of questionnaire items" (p. 219). The survey was pilot tested on a sample of 40 expatriates before being sent to the population of expatriates in Singapore. No information was provided about administration of the interview.

Callahan (2000) conducted a case study of non-profit organization members' purposes for managing their experience and expression of emotion. Data was collected using individual interviews, observations, surveys, and document analysis. Multiple methods of data collection were used for validity through triangulation (Patton, 1990). Callahan identified the study as "primarily qualitative...based on a naturalistic design" (p. 251). Data analysis of the interviews and correspondence used codes constructed from theory as the primary coding scheme. Within a primary code, open coding was used to arrive at broad concepts within a constructed code. Themes emerged within the primary coded categories. ANOVAs were conducted on the survey data to ensure that the larger surveyed sample was not significantly different from the interviewed and surveyed sample. This is an example of Type IV mixed method model (Tashakkori and Teddlie, 1998) or naturalistic inquiry, which collects qualitative data and statistically analyzed it.

Additionally colleagues familiar with the theory being explored coded a data set to establish internal validity. Seven scholars reviewed the findings and interpretations for consistency. Four participant researchers reviewed the final document for accuracy of interpretation. Even though Callahan described this study as primarily qualitative, she took many quantitative steps to ensure reliability and validity of the findings.

Of the six studies examined here only two (May, 1999; Nurmi, 1999) used the theoretical framework provided by the field of mixed methods. Without similar attribution, the other four studies used mixed methods to enhance evidence, (Wentling & Palma-Rivas, 2000), for triangulation (Stein, Rocco, & Goldenetz, 2000), for triangulation and to ensure integrity (Callahan, 2000), and for instrument refinement (Osman-Gani, 2000). The decisions to use mixed methods were apparently pragmatic and at the technical level.

The snapshot provided here demonstrates that mixing methods is being done to strengthen HRD research designs. So far the research design decisions are pragmatic and without regard to the growing inquiry literature on mixed methods. The snapshot of mixed methods in adult education parallels the findings in HRD. A hand search of Adult Education Quarterly produced the articles discussed below.

Use of Mixed Methods in Adult Education

In 1984 Brookfield issued a challenge to adult education researchers to examine their "methodolatory" processes of generating knowledge. He critiqued researchers for their over reliance on "the adoption of strictly defined and tightly administered quantitative measures in the investigation of self-directed learning" (p. 65). The principle text on adult education research reflects the momentum gained by qualitative research designs (Merriam & Simpson, 2000). Merriam and Simpson (2000) include one chapter on quantitative research, two chapters on qualitative research, and no chapters on mixed methods in their updated version of *A Guide to Research for Educators and Trainers of Adults*. They affirm "both types of data [quantitative and qualitative] are useful in the process of systematic inquiry related to adult education and training" (p. 147). They suggest that content analysis can be approached using both quantitative and qualitative methods. Merriam and Simpson, however, are silent on how quantitative and qualitative data collection and data analysis can be meaningfully mixed in the same study.

An examination of articles from the Adult Education Quarterly provide evidence of mixed methods in adult education research and a continuing silence on rationales for its use. It is striking to note that very few authors identify their work as mixed methods in either the abstract or the method section of the article. For example, Cervero, Rottet, and Dimmock (1996) indicated they used both qualitative and quantitative data to evaluate a nursing continuing education program but they did not identify a rationale for the use of historically polarized approaches. The authors cited in this section reflect the evolution in research development that supersedes the quantitative – qualitative polarity. As Tashakkori and Teddlie (1998) wrote, "most researchers now use whatever method is appropriate for their studies, instead of relying on one method exclusively" (p. 5-6).

Identifying the research design according to the mixed method typology Tashakkori and Teddlie (1998) delineated can enhance adult education research by locating the research within a pragmatic paradigm, justifying the use of mixed methods, and clarifying their use in the various stages of research (ie., sampling, data collection, data analysis, inference, etc.). Identifying the mixed method design as described by Tashakkori and Teddlie (1998) can enhance the "good science" quality of the research by reducing the conceptual confusion associated with mixing qualitative and quantitative approaches as evidenced in the following examples.

Gordon and Sork (2001) approximately replicated an earlier study about adult education practitioners' views on the need for a code of ethics. The survey methodology they employed included both closed-ended and open-ended questions. The answers to the closed-ended questions were statistically analyzed using descriptive statistics, chi-square tests, and one-way analysis of variance tests. "Responses to open-ended questions were categorized and frequency counts made for each category" (p. 206). The results of the study included both findings of statistical significance and descriptions of ethical situations encountered by practitioners. Gordon and Sork (2001) used both quantitative and qualitative approaches. Using Tashakkori and Teddlie's model (1998), this study is a parallel mixed model study or Type VII. Two stages of the investigation, data collection and data analysis, used both approaches. The research design, data collection, and analysis used by Gordon and Sork demonstrated research design ruled by "the dictatorship of the question" (Tashakkori & Teddlie, 1998, p. 167).

Cervero, Rottet, and Dimmock (1996) tested a framework for the relationship between nursing continuing education and job performance. Cervero et.al. (1996) used quantitative and qualitative data collection and analysis. A 74-item quality assurance review was used to score the dependent variable and rating scores for the independent variables were taken. An analysis of variance was conducted. The qualitative data collection "asked the nurses in the hospital to give [their] explanations for the [statistical] findings" (Cervero, et.al., 1996, p. 82). Three themes emerged and were supported by the data from questionnaires and groups. Using Tashakkori and Teddlie's typology, the study conducted by Cervero et.al., (1996) was Type VIII or a sequential mixed model study. The study had two distinct phases, one with quantitative inquiry and operations, and one with qualitative inquiry and analysis. Cervero et. al. successfully "combined experimental procedures with qualitative data collection and inference" (Tashakkori & Teddlie, 1998, p. 154).

Boshier (1991) tested the validity of a motivation scale using both qualitative and quantitative data collection. Quantitative data were collected and statistically analyzed to determine predictive validity. The author gave no references for including the qualitative component and did not justify its insertion in the study. The use of qualitative data collection (i.e., interviewing) assisted Boshier in developing additional motivational test items that he later validated and used to predict outcomes. The study clearly used "what worked" to answer the question without an articulated theoretical framework. Tashakkori and Teddlie's Type VIII sequential mixed model describes the process employed by Boshier. In Boshier's study, the mixing occurred during the data collection phase. The first phase collected qualitative data to generate test items that were used in the succeeding quantitative phase. In this complex mixed method design, the quantitative phase was designed to explore the issues raised in the previous qualitative phase (Tashakkori & Teddlie, 1998).

A study by Courtenay, Merriam, Reeves, and Baumgartner (2000) was a subtle variation of a mixed method study that was driven by research questions. In this study, the authors interviewed members from a sample they studied two years previously to see if their perspective transformation was stable and to identify ways they continued to make meaning in their lives. The authors identified the follow-up study of adults with HIV as qualitative and primarily inductive; however, one part of their study was to test Mezirow's (1991) theory that perspective transformation was stable. They used Glaser and Strauss to justify the insertion of a quantitative approach (Courtney, et. al., 2000). Like Tashakkori and Teddlie, Glaser and Strauss did not see a "fundamental clash between the purposes and capacities of qualitative and quantitative methods or data...Primacy depends only on the circumstances of research" (Courtney, et. al., 2000, p. 106). Tashakkori and Teddlie's pragmatic paradigm offers a rationale for inserting a quantitative component into a qualitative dominant study. They articulate the Dominant-Less Dominant mixed method design as a means to answer research questions within a consistent paradigm and yet include all necessary information (Tashakkori & Teddlie, 1998).

Some of the articles reviewed predate the literature on mixing methods yet show evidence of the use of mixed methods to answer research questions. Shipp & Mckenzie (1981) used both quantitative and qualitative design in their study of demographic and psychographic characteristics of adult learners and non-learners. Quantitative data was collected through structured indirect interviews and analyzed statistically. A qualitative summary or demographic profile was written for the learner and the non-learner. This study reversed the usual trend of quantifying qualitative data and qualitatively analyzed quantitative information. The authors did not identify their use of mixed methods in their abstract or methods section. Tashakkori and Teddlie articulate this type of mixed method study as a Type VI. In Type VI studies, quantitative data collection precedes qualitative analysis and

inference. Shipp and Mckenzie (1981) used quantitative data to create profiles of adult learners and non-learners. The design effectively answered their research questions and illustrated the use of "what works" before the mixed method approach was articulated (Tashakkori & Teddlie, 1998).

These examples of adult education research highlighted the silent use of mixed method design to answer research questions. The studies reviewed here successfully addressed their research question by using "what works" to increase the power of their conclusions. The precision of differentiating the data collection phase and the data analysis phase is more visible when the mixed method research design is utilized. Articulating the mixed method design and clarifying the various stages in which mixed methods were used can strengthen the power of studies. A systematic approach, such as using an explicitly mixed method research design, can empower researchers to justify their use of alternative methods and clarify each step of the research process. Tashakkori and Teddlie's (1998) articulation of the pragmatic paradigm and delineation of mixed method models will aid future adult education researchers to maximize the power of their inferences and conclusions.

Implications for HRD/AE Research

Little explicit discussion of research design decision-making or theoretical support for mixing design components was observed in the examples used in this paper. This lack of seemingly informed decision-making often included a lack of information on specific techniques used in a study. The authors may have had sound rationales for their choices but this level of detail did not make it into the method sections of their articles. This has larger implications for HRD as a field as we strive to have our research taken seriously by other disciplines.

Many research questions and topics of interest lend themselves to mixed methods approaches. Yet we lack training in using mixed methods in all but the most rudimentary ways (e. g. triangulation). There is a need for research courses that demonstrate quantitative and qualitative data collection and analysis techniques, followed by instruction in how and when to mix methods in the various stages of a research design. Hopefully, this will lead to a greater sophistication when making thoughtful design decisions at the technical level and encourage design decisions to be made at the philosophical and political levels.

In conclusion, much of the HRD/AE research reports we reviewed in the literature today do not discuss the broader philosophical and political level decisions that ultimately shape research agendas. They confine their discussions concerning research design and data interpretation to descriptions of technical level decisions about "methods and procedures" (Greene & Caracelli, 1997, p.6). Appropriate journals should encourage the inclusion of such discussions in research submitted for publication.

We note that researchers such as Greene, Caracelli, Tashakkori, Teddlie, and others are beginning to seriously address educational research's larger philosophical and political level decisions. We likewise support Greene and Caracelli's admonition that to be doing good science, researchers using mixed methods must begin to more thoughtfully address the broader level decisions. To use Greene and Caracelli's (1997) term, on the political level, these researchers should be seeking the development of a body of strong, defensible research about HRD and adult education. Mixed method advocates should be leading the academic discussions about the ontological and epistemological issues of what can be known about "the social world and our ability to know" (Greene & Caracelli, p. 5). As Greene and Caracelli have pointed out, "The underlying rationale for mixed-method inquiry is to understand more fully, to generate deeper and broader insights, to develop important knowledge claims that respect a wider range of interests and perspectives" (1997, p.7). Mixed methods research that emerges from this discourse has the potential to be more useful to people making policy decisions about HRD and adult education and society.

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Factors Affecting Transfer of Training in Thailand

Siriporn Yamnill
Gary N. McLean
University of Minnesota

To validate the Learning Transfer System Inventory (LTSI) (Holton et al., 1998) in Thailand, research repeating Holton et al.'s (2000) study was conducted. The LTSI was administrated to 1,029 employees. Exploratory factor analysis and MANOVA were used to identify factors and compare transfer systems respectively. A factor structure almost identical to Holton et al.'s was identified. Perceived content validity was identified as the most important factor. Organization type created the greatest number of differences among variables tested.

Key words: Transfer of training, Learning Transfer System Inventory, Thailand

For more than three decades, organizations in Thailand have focused on training and development as a tool for improving employees' job performance. About 1,439 private and public organizations in Thailand organize training to expand and strengthen the business sector (Tirakanon, 1997). Recently, due to an economic crisis in Thailand, many training and HRD interventions have faced constricted budgets (Na Chiangmai, 1999). Most organizations have continued only those training programs that are really needed and can be expected to increase employees' work performance immediately. As a result, many administrators ask to see the outcomes of training. Evaluating the effectiveness of formal training and return on training investment are critical issues (Na Chiangmai, 1999).

According to Kirkpatrick (1967), the key criterion for evaluating training effectiveness is transfer of training. Transfer of training is defined as the degree to which trainees apply the knowledge, skills, behaviors, and attitudes gained in training to their jobs (Wexley & Latham, 1991). There is consensus that the acquisition of knowledge, skills, behaviors, and attitudes in training is of little value if the new characteristics are not generalized to the job setting or are not maintained over time (Kozlowski & Salas, 1997).

According to Holton, Bates, and Ruona (2000), transfer of training is a critical outcome of HRD. Transfer of training is complex and involves multiple factors and influences (Baldwin & Ford, 1988; Ford & Weisbein, 1997; Holton, Bates, & Leimbach, 1997; Holton, Bates, Ruona & Leimbach, 1998; Noe, 1986; Rouiller & Goldstein, 1993). Tannenbaum and Yukl (1992) suggested that research that defines and accurately measures factors affecting transfer of training is important to help HRD move beyond the question of whether training works to asking why training works. Without controlling for the influence of the transfer system, evaluation results are likely to vary considerably and yield erroneous conclusions about intervention outcomes (Holton, 1996).

Problem Statement

To date, most of the research on training effectiveness in Thailand has focused exclusively on Kirkpatrick's levels 1 (reaction) and 2 (learning) (Tirakanon, 1997). There has been no research identified on transfer of training in Thailand. Sunthornvipat (1983) analyzed the evaluation of training projects in Thailand. She found that more than 80% of the organizations studied used reaction measures to evaluate their programs. Tirakanon (1997) found that 80-90% of organizations that evaluate programs after training emphasized learning and reactions. Some research (Chue, 1993; Pahuchun, 1996; Somboonsut, 1989; Thongtip, 1998) has followed up on the application of knowledge and job performance, but studies of the factors that positively influence transfer were not identified. Without understanding these factors, Thai HRD professionals will continue to understand evaluation of training narrowly and continue to make decisions based on reaction and learning level data only. According to Holton et al. (2000), organizations wishing to enhance return on investment from training investments must understand all factors that affect transfer of training and then intervene to eliminate factors inhibiting transfer.

A well-validated and reasonably comprehensive set of scales to measure factors in a transfer system will be a key element in improving the organizational transfer system. Holton et al. (2000) developed the Learning Transfer System Inventory (LTSI) to assess sixteen factors that they suggested influence transfer. To date, the LTSI has mostly been used as a diagnostic tool—participants complete it at the end of training interventions, and results are used to assess the quality of the transfer climate and to indicate where changes might be made. According to Holton et al. (2000), the LTSI was constructed from sound theory and based on a very large and extremely diverse sample. It works well across many types of training and organizations. However, Holton et al. (2000) suggested that the

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LTSI needs to be validated in different cultures. Training evaluation in Thailand has focused mostly on influences within the training context but has ignored other influences within the firm that affect performance outcomes from learning. In order to move beyond the current framework, an accurate diagnostic tool is needed to assess the transfer of training factors that affect transfer of training in Thailand.

Purposes and Research Questions

This study identified a set of factors that affect transfer of training in Thailand by replicating Holton et al.'s (2000) study. The transfer system found in the Thai culture was examined across organization and training types, as well as participant demographics. Following are the study's research questions:

1. What factors in Holton et al.'s (2000) study are identified using the LTSI translated into Thai?
2. Are there differences in Thai transfer system characteristics among different organizational types: government, private, and state enterprise?
3. Are there differences in Thai transfer system characteristics among different training types: professional, general, management/leadership, and computer?
4. Are there differences in Thai transfer system characteristics among demographics of participants: gender, age, education, and work experiences?

Methodology

The methods used to validate the LTSI (Holton & Bates, 1998) in Thailand through replication are described in this section, including population and samples, instrument, data collection process, and data analyses used.

Population

The population was employees in 552 Thai organizations (119 government organizations under the Office of Civil Service Commission, 51 state enterprises, and 382 private organizations in the Stock Exchange of Thailand in 2000).

Samples

To ensure organizational diversity, proportionate random sampling was used to select participated organizations. From the 30 selected organizations, 1,256 employees who had completed a training program within the last two months were given instruments to complete. Eighty-two percent (1,029) participated.

Instrument

The LTSI (Holton & Bates, 1998) has 89 items: 68 items from the second version of the LTSI and 21 additional items not yet tested. The 89 items measure 16 factors affecting transfer of training. The LTSI uses a scale of 1-5, 1 being "strongly disagree" and 5 being "strongly agree." The items represent two construct domains: 45 items measure 11 constructs of factors affecting the training program attended and 23 items measure five constructs that are not program specific but represent general factors that may influence any training program. Cross-translation was performed and revisions made to ensure that the Thai version was equivalent to the English LTSI original.

Data Collection

The Thai LTSI was administered at one of two times. When administered at the end of a program, the person who organized the training program distributed questionnaires to trainees during the final period and collected completed instruments. If the LTSI was administered after training, the head of the HRD or training department selected two training programs that had finished within the past sixty days. The LTSI was mailed directly to trainees, and completed LTSI instruments were returned to the HRD or training department within three weeks.

Data Analysis

Exploratory factor analysis was used to compare factors affecting transfer of training when using the LTSI. The measure of sampling adequacy (MSA) was used to determine the appropriateness of the use of factor analysis. No

inadequate MSA values were found. Multivariate analysis of variance (MANOVA) was used to explore differences in Thai transfer system characteristics. Prior to these analyses, the data were examined for adherence to MANOVA assumptions. According to Hair, Anderson, Tatham, and Black (1998), if the ratio of the largest to the smallest group differs by more than 1.5, a test for equality of variance (the Box test) is needed. However, the Box test is not a robust test; it is very sensitive due to many problems (Harris, 1985). In this study, MANOVA was run whenever the Box test was statistically significant, and the results of the MANOVA were examined carefully.

Results

Results included descriptive demographic data and the results of the analyses related to the four research questions.

Demographic Data

The 1,029 respondents were almost equally distributed between men and women. Most were between 31 and 40 years old (44.0%) and had graduated with a bachelor's degree (64.9%). Average work experience was 12.64 years.

Factor Constructs

Exploratory factor analysis was used to explore the factors that emerged from using the Thai LTSI. The results of the factor analysis of both the 68- and 89-item forms are presented, along with a comparison with the results in the U.S. The findings of specific training program scales and training in general scales are presented separately. Items retained are those with factor loadings greater than .35; all factors had eigenvalues of 1 or more.

68-Item Form. Thirty-eight items were retained in the *specific training program* scales, assessing 11 factors. The same number of factors were found in Holton et al. (2000). In addition, most of the items loaded on the same factors. For example, four of the eleven factors contained the same items. The other seven factors were nearly identical. Only two items (#1, #17) loaded on different factors. Thus, the factors in this study were labeled the same as those in Holton et al. (2000). Six of the eleven factors exceeded the minimum reliability of at least .70. Overall, reliabilities ranged from .58-.85, with an average alpha of .73, and the average loading on the major factor was .61 with only .01 average loading on non-major factors.

As for the *training in general* scales, five eigenvalues of 1 or more, accounting for 53.1% of the variance, emerged from the factor analysis of the 23 items. These five factors corresponded to the factors in Holton et al. (2000). Twenty-one items were retained. Three of five factors were identical to the factors found in Holton et al. (2000), with only one item loaded on a different factor. The three factors that were identical to factors found in Holton et al. (2000) were resistance/openness to change, performance self-efficacy, and feedback/performance coaching. Overall, reliabilities were above the minimum level (.70), except for performance-outcome expectations and feedback/performance-coaching factors. Reliabilities ranged from .61-.81 with the average alpha of .72. The average loading on the major factor was .58 with a .01 average loading on non-major factors.

In conclusion, upon determining the eigenvalues of 1.00 or more, sixteen factors were extracted. Seven factors were identical to factors found in Holton et al. (2000). Only three items loaded on different factors. Ultimately, using a cut off for factor loadings of .35, 59 items were retained in the instrument, assessing 16 factors.

89-Item Form. The *specific training program* scale produced 11 factors, explaining 55.19% of the variance. Of the 63 items in this part of the instrument, 52 items loaded .35 or higher on these eleven factors. Eleven items were dropped because of weak factor loading. Most items loaded on each factor corresponded to the items loaded on the factors found in Holton et al. (2000). Only 5 items were loaded on different factors. Most factors had acceptable reliability. Only the personal capacity for transfer factor had low reliability (α=.24). The average loading on the major factor was .60, with only a .01 average loading on non-major factors.

For the *training in general* scales, five factors emerged, explaining 53.65% of the variance. Of the 26 items on the instrument, 21 loaded .35 or higher on these five factors. The five factors corresponded to the factors found in Holton et al. (2000). Only one item loaded on a different factor. Five items were dropped because of a factor loading of less than .35. Most factors had acceptable reliability. Overall, reliabilities ranged from .63-.83. Only performance outcomes expectation was below .70. The average loading on the major factor was .64, with only a .012 average loading on non-major factors.

In conclusion, sixteen factors were extracted; five were identical to factors found in the LTSI (Holton and Bates, 1998). Only six items had substantial loadings on different factors. The additional items were loaded on the

expected factors. Ultimately, using a cut off for factor loadings of .35, 73 items were retained in the instrument, assessing 16 factors.

Organizational Type Comparisons

MANOVA was used to determine if organizational type affected the results on the Thai LTSI. Government, state enterprise, and private organizations included 366, 192, and 471 respondents, respectively. The ratio of the largest group to the smallest was 2.45:1.

The MANOVA analysis showed strong statistical significance (Wilk's lambda = .858, F = 4.918) at the .00 level on all criteria, indicating that the transfer system characteristics differed across organizational types. Then, a Univariate ANOVA was used to show the differences across organizational type. The results showed that eleven of the sixteen factors were significantly different across organizational type.

Post hoc comparisons were examined for differences among pairs of organizational types. Government and state enterprise organization comparison revealed that only four of the sixteen paired comparisons showed significant differences. The results showed that the learner readiness, personal outcomes-positive, opportunity to use learning, and transfer effort-performance expectation factors in state enterprise organizations were significantly higher than those in government organizations. When comparing government and private organizations, ten of the sixteen paired comparisons showed a significant difference. The personal outcomes-positive, personal outcomes-negative, peer support, supervisor support, opportunity to use learning, transfer effort performance expectation, performance-outcomes expectations, and performance self-efficacy factors in private organizations were significantly higher than those in governmentorganizations. In contrast, supervisor sanctions and resistance/openness to change factors in government organizations were significantly higher than those in private organizations.

When comparing state enterprises and private organizations, only four of sixteen paired comparisons showed significant differences. Personal outcomes-positive, personal outcomes-negative, and supervisor support factors in private organizations were significantly higher than those in state enterprise. The learner readiness factor in state enterprises was significant higher, than in private enterprises.

Overall, the results showed that the highest number of factor differences across organizational type was between government and private organizations.

Training Type Comparisons

Professional, general, management/leadership, and computer training included 325 (31.6%), 403 (39.2%), 195 (19.0%), and 106 (10.3%) respondents, respectively. The ratio of the largest group of trainees to the smallest was 3.8:1. MANOVA analysis revealed strongly significant differences (Wilk's Lamda = .89, F = 2.51) at the .00 level across training type, indicating that the transfer system was significantly different across training types. In the between subject ANOVA, eight of sixteen factors were significantly different across the training types.

The post hoc comparisons showed that respondents who received management/leadership training rated personal outcomes-positive, training design, opportunity to use learning, and performance outcomes-expectations significantly higher than those receiving general training or professional training. By contrast, respondents who received general training rated perceived content validity significant higher than management/leadership training and rated supervisor support higher than those who participated in computer training. In addition, respondents who received computer training rated learner readiness significantly higher than did those pursuing management/leadership training.

Demographic Group Comparisons

MANOVA was used to analyze the differences among demographic groups.

When *gender* was used as the independent variable, male respondents numbered 496 (48.2 %), with female respondents, 533 (51.8%). The ratio of women to men was 1.07:1. MANOVA analysis showed statistically significant differences (Walk's lamda = .97, F = 2.09, p = .007) on all criteria, indicating that transfer system characteristics differed between male and female respondents. The F-test showed that only two of sixteen factors were significantly different; however. males rated personal outcomes-positive and transfer effort performance expectation higher than did females.

With *age* as the variable, the ratio of the largest group to the smallest group was 1.91:1. MANOVA analysis showed strongly significant differences (Wilk's lamda = .93, F = 2.31) at the .00 level across age ranges. In between subject ANOVA, three of sixteen factors were significantly different according to age: personal outcomes-positive,

supervisor sanctions, and feedback/performance coaching. The post hoc comparisons showed that respondents aged 30 years or less rated personal outcomes-positive and feedback/performance coaching higher than did those aged 31-40 years old and those more than 40 years old. In contrast, respondents aged 40 years or more rated supervisor sanctions higher than their younger cohorts.

For *education*, f the total respondents, 158 (15.7%) had less than a bachelor's degree, 653 (64.8%) had at least a bachelor's degree, and 197 (19.5%) had education levels beyond a bachelor's degree. The ratio of the largest group to the smallest group was 4.13:1. MANOVA analysis showed strongly significant differences (Wilk's lamda = .88, F = 4.17) at the .00 level across the educational levels. In between subject ANOVA, seven of sixteen factors were significantly different across educational levels. The post hoc comparison showed significant differences in those seven factors. Respondents with less than a bachelor's degree rated personal outcomes-positive, personal outcomes-negative, supervisor support, perceived content validity, performance outcomes expectation, and feedback/performance coaching higher than did respondents with higher levels of education.

For *work experience*, 158 (15.7%) respondents had fewer than 5 years of experience, 225 (22.3%) 5-9.99 years, 280 (27.8%) 10-15 years, and 345 (34.2%) had more than 15 years. The ratio of the largest group to the smallest group was 2.18:1. MANOVA analysis showed strongly significant differences (Wilk's lamda = .90, F = 2.17) at the .00 level across the number of years of work experience. In between group ANOVA, four of sixteen factors were significantly different. The post hoc comparisons showed significant differences in three factors. Respondents who have worked fewer than 5 years rated personal outcomes-positive higher than those who have more than 15 years on the job, while respondents who have worked 10-15 years rated personal outcomes-positive higher than who have 5-9.99 years of experience. In addition, respondents who have worked more than 15 years rated supervisor sanctions higher than those who have worked 5-9.99 years and those with less than 5 years of experience. Finally, the least experienced rated feedback/performance coaching higher than those who have worked 10-15 years and those with more than 15 years of experience.

Conclusions

The following conclusions are drawn from this study.

1. Sixteen transfer of training factors emerged when the LTSI version 2 (Holton and Bates, 1998) was applied in a Thai sample. Since these 16 factors corresponded to the transfer system , the transfer system developed by Holton et al. (1998) is valid in Thailand.
2. Perceived content validity is the most important factor to explain transfer of training in Thailand. This result also corresponded to Holton et al. (2000).
3. The Thai transfer system most varies depending on organizational type, especially between government and private organizations. This result may be explained by differences in organizational characteristics and culture between these two kinds of organization.
4. The validated Thai LTSI consists of 73 items, measuring 16 factors affecting transfer of training in Thailand, divided into two sections. The first contains 52 items measuring 11 factors in specific training program scales, and another 21 items measure five factors in training in general scales. However, this instrument has some weaknesses, such as a disproportionate number of items across factors and low internal consistency reliability in some factors. Therefore, this instrument needs revision and additional research.

Recommendations for Practice

The following recommendations for practice are made based on the findings and conclusions of this study.

1. Because perceived content validity is the most important factor that affects transfer of training, learners should be assigned as full stakeholders in the design and implementation of training. Learners may be responsible for identifying training objectives, assessing their training needs and participating in developing the training curriculum. The relevance of knowledge, skills, and attitudes of learners to training is significant in determining the training transfer.
2. Because transfer systems vary, particularly depending on the types of organization, HRD professionals in organizations need to diagnose their transfer system. Then, different interventions might be needed for different organizations to enhance transfer of training.
3. According to Holton et al. (2000), the LTSI can be used as a diagnostic tool. In addition, practitioners can use it in different ways, such as to assess potential transfer factor problems prior to conducting major learning interventions, to incorporate evaluation of transfer of the learning system as part of regular employee

assessment, and to conduct needs assessment for training programs to provide skills to supervisors and trainers that will aid transfer.

Recommendations for Research

Future research is suggested as follows.

1. Continued research to test the Thai transfer system found in this study should be done by using confirmatory factor analysis.
2. A qualitative interview process to uncover further factors of transfer of training in Thailand should be initiated. The richness of qualitative research is enhanced through the collection of additional data and subsequent analysis.
3. Research on related effects of transfer of training factors on work performance after attending training should be done to see the relationship between these two factors.
4. This study focused on the government organizations under the control of the Office of Civil Service Commission only. If the subjects were from other government organizations that are not controlled by the OCSC, such as the military, judicial, or police organizations that different results might occur.

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Characteristics Explaining HRD Effectiveness

A.A.M. (Ida) Wognum
Bernard P. Veldkamp
Wendy E. Ankersmit
J. Annechien van de Lagemaat
University of Twente, The Netherlands

Data from seven surveys were analyzed to identify characteristics that have an impact on the effectiveness of HRD programs. Results indicate, that setting specific HRD objectives promotes HRD effectiveness more than the setting of general objectives, HRD people are more positive about HRD effectiveness than managers and personnel officers, in-company programs are less effective than individual ones, and that programs in the field of languages are perceived as more effective that programs in the field of management, communication, and commerce.

Keywords: Improving Training Results, Enhancing HRD Effectiveness

Managers are increasingly being made responsible for the performance results of their work organization, unit or department. One of the means of improving performance is to develop the competencies of their employees by means of training and other learning interventions. They will invest in such interventions - further referred to as training, or Human Resource Development (HRD) programs - if these have added value for their company; and work organizations are still making considerable investments in training (Van Buren, 2001). In this way they are indicating that they expect training to produce positive effects on the achievements not only of individual employees but also of separate departments and the entire organization. Managers, however, will certainly take a critical look at the results of training and will only be willing to opt for those training programs that are expected to produce positive effects. In other words, HRD will be seen more and more as an investment that should produce results (Wognum, 1994). Research into the effectiveness of HRD has, as a result, been given a significant impetus, certainly after it was estimated in literature that only between 10 and 20 per cent of the capital invested in HRD and learning interventions would lead to a lasting improvement in performance (e.g. Broad, 1997).

A major part of training and HRD interventions is bought in from outside training companies. These organizations provide training programs from which the purchasing companies expect positive effects. Training companies therefore aim to provide programs of a high quality. The '*Vereniging van Trainings- en Opleidingsinstituten in Nederland*' [Association of Training and Education Institutes in the Netherlands] (Vetron) is an association of established training companies that considers quality to be of paramount importance. In order to be able to monitor this quality, Vetron asked the Faculty of Educational Science and Technology of the University of Twente to conduct an evaluation on its behalf. This involves a survey being carried out of the quality of the training companies that are affiliated to Vetron by means of a random sample of the client base of the companies concerned. Seven surveys were carried out, during the period 1993 up to and including 1999.

Research Question

In the above section it is indicated that Vetron has had seven surveys conducted of the quality of the HRD programs provided by its companies. The study presented in this paper relates to a further analysis of the data from all seven surveys. On the basis of the results, Vetron aims to increase the effects and thus the effectiveness of the training they provide, by improving characteristics that have an impact on the effects of HRD programs. This implies, that Vetron would like to gain an insight into characteristics explaining HRD effectiveness. The research question, therefore, runs as follows: Which characteristics explain the effectiveness of HRD programs carried out by Vetron training companies?

Conceptual Framework

The above stated research question elaborates on research that was carried out in previous years by the University of Twente, Faculty of Educational Science and Technology, Department of Educational Organization and Management

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(Wognum, 1999) and fits within the performance paradigm of HRD. According to Weinberger (1998), the performance paradigm of HRD holds that the purpose of HRD is to advance the mission of the organizational system. HRD efforts are intended to improve the capabilities of individuals working in the organization and enhance the organizational systems in which they perform their work. The primary outcome of HRD in this context is not just learning, but also performance at various levels (Holton, 2000). Kaplan and Norton (1996) suggest two categories of performance measures: the so-called drivers and outcomes. Outcomes measure effectiveness relative to core outputs of the system, sub-system, process or individual, whereas drivers measure elements of performance that are expected to sustain or increase system, sub-system, process, or individual ability and capacity to be unique for particular performance systems (Holton, 2000). Together, these drivers and outcomes describe the cause and effect relationships in organizations (Kaplan & Norton, 1996), which implies that drivers should predict future outcomes.

This theory fits well into the theory of HRD effectiveness, where HRD effectiveness is conceived as the extent to which HRD goals and objectives are achieved. (Wognum, 1999). This implies that, to define the level of effectiveness, HRD effects can be measured at three output levels (Holton, 2000; Wognum & Lam, 2000): the learning level (effects on knowledge, skills and attitudes), behavior level (effects on job behavior of individual employees) and results level (effect on the performance results of groups, departments or the company). The HRD effectiveness theory also points to a means-goals ordering that distinguishes between the ultimate criteria and the supportive, effectiveness-enhancing criteria. HRD effects can then be seen as ultimate criteria of HRD effectiveness, like Kaplan and Norton's output measures. Criteria such as the HRD process itself are seen as effectiveness-enhancing criteria (Scheerens & Bosker, 1997; Wognum, 1999), just like Kaplan and Norton's performance drivers. They explain, to some extent, HRD effectiveness. Gaining insight into these criteria is necessary, as a means of interpreting the effects of HRD.

Based on the above stated insights, Wognum (1999) identified the following characteristics, explaining HRD effectiveness.

Setting HRD Goals. In organizational effectiveness thinking, goals can be seen as the major defining factors of the effectiveness concept itself (Scheerens & Bosker, 1997). HRD goals will be developed during a strategic planning or strategic HRD alignment process (Wognum & Mulder, 1999). The word 'strategic' emphasizes the company perspectives and makes the link between HRD and organizational goals and objectives. Strategic alignment concerns a dynamic and interactive process in which HRD goals and objectives are formulated as part of an ongoing future company policy. This relates to the learning and development of individuals and groups of employees for the benefit of both the company and themselves (e.g. Garavan, Costine and Heraty, 1995). In much of the literature, it is assumed that the process of setting general goals and specific objectives for the organization's HRD programs is important to enhance HRD effectiveness. Wognum found in her study on strategic HRD alignment that this process does indeed have a positive effect on perceived HRD effectiveness (Wognum, 1999). If strategic planning resulted in the formulation of more specific objectives, the impact on perceived effectiveness would be even higher than in the case of general goals. It would be interesting to investigate whether setting or not setting goals for HRD projects that have been carried out by Vetron companies has an influence on HRD effectiveness. In the process it would be important to examine whether it is the setting of specific goals that promotes HRD effectiveness more than the setting of general goals.

Involvement of Stakeholders. Strategic HRD alignment refers to the interrelationship between HRD representatives and relevant company employees at strategic, tactical and operational levels of the organization, the so-called HRD stakeholders. Each of these stakeholders or groups of stakeholders aims at particular effects with HRD interventions. Senior managers, for example, will put the functioning of the work organization first, whereas HRD officers are far more focused on the learning goals that the participants should have reached by the end of the HRD activity (Wognum, 1994). This stakeholder perspective can have an influence on the assessment of the HRD effectiveness realized. Earlier research results showed that stakeholder involvement in the strategic alignment process has a positive impact on perceived HRD effectiveness; supervising managers and HRD officers, however, perceive HRD effectiveness significantly higher than HRD participants do (Wognum & Lam, 2000). It is important therefore to investigate to what extent the position of stakeholders in the Strategic alignment process (e.g. training designer, participant, consultant) and the function they hold (e.g. director, divisional manager, HRD coordinator) makes a difference to actual or perceived HRD effectiveness.

Form of HRD Programs. The form of an HRD program is expected to influence HRD effectiveness (Wognum, 2001a). Depending on the kinds of organizational problems involved, a specific HRD program can be tailored or

customized for a specific company, or a standard or other 'off-the-shelf' program, suitable for any company or problem situation can be provided. The former program is mostly offered as a so-called in-company program; the latter is an individual program, open to employees from different companies. The study by Wognum (2001a) revealed that the perceived effectiveness of tailor-made programs was less than that of other program forms. This result was not expected. In-company programs were expected to be more effective than standard programs, because they are tailored to the specific situation of the company where the participants work. It would therefore be interesting to examine whether in-company programs, such as those delivered by Vetron companies, are more effective than individual, more standardized programs in which employees from different companies can participate.

Content Field of HRD Programs. All kinds of environmental forces affect the company, such as demographic, social, economic, ecological, technological, and cultural. Some of these forces have a direct or indirect impact on the company and its HRD function. The ever-increasing trend towards automation, robotics, and other advanced computer applications, for example, has resulted in technological modifications and changes within companies. These changes impel companies to train and develop their employees (Pettigrew, as cited in Garavan, 1991). The HRD function is obliged to deliver HRD programs that provide these workers with the required competencies. Environmental forces thus serve as the starting point for HRD, determining to a certain extent the content field of HRD programs. This 'content field' is also seen as a feature that will have an impact on HRD effectiveness. Automation programs, for instance, proved to be significantly more effective than social skills programs (Wognum, 1999). One possible explanation for this was the different nature of the knowledge and skills in each of the two programs mentioned. It would also be interesting to examine whether differences in HRD effectiveness for different content fields can be observed in the HRD activities carried out by Vetron companies.

Method

Sample. To investigate the research question and, more specifically, the influence of the characteristics identified in the previous section on HRD effectiveness, a data file was used containing data from more than 3,700 questionnaires that were completed in the period from 1993 up to and including 1999 in the context of the evaluation commissioned by Vetron. The data came from a random sample of the client base of - on average - forty training companies that are affiliated to the Vetron. These Vetron companies satisfy a number of requirements relating to professional competence, continuity, quality and method of working. A questionnaire was sent to this random sample, more than 6 months after the HRD activity had been completed. On average, the response percentage was 35%. The main reason for non-response was the fact that respondents were no longer in the employ of the organization involved, due to high turnover rates in the companies.

Data Collection. A questionnaire, which had been specially developed for the evaluation project commissioned by Vetron (Mulder, 2000), was used for gathering the data. This questionnaire was used to determine the quality of the performance of the HRD assignments by the commercial Vetron companies. The questionnaire contains questions about the respondent, about characteristics of the HRD assignment, about the setting of objectives, about the division of responsbilities, about the attribution of the results to the training company and, finally, questions about making agreements and adhering to these (Mulder, 2000). The questionnaire measures both characteristics that have a direct impact on HRD effectiveness and characteristics that could possibly be used as explanatory variables.

Measurement of HRD Effectiveness. The effectiveness of an HRD program is often not immediately measurable, which is why in this study the indicator developed in the context of the Vetron evaluation was used to measure HRD effectiveness (Mulder, van Ginkel & Nijhof, 1994). This Aggregated Impact Indicator (AII) is calculated from the total satisfaction about the assignment, the realization of expectations, the adjusted effect score, the making of agreements and the extent to which these are adhered to, and satisfaction with the implementation of the program. The adjusted effect score is calculated from the extent to which the objectives of the HRD assignment have been realized. In the process, adjustments are made to reflect the importance of the objectives, the extent to which the training company was responsible for achieving these objectives and the extent to which the respondent attributes the attainment of the objectives to the training company. A weighting factor was awarded to each of the characteristics of the effectiveness indicator, based on the results of a Lisrel analysis (Mulder, s.a.). The reliability and validity of this measure was tested by Mulder c.s. as sufficient (1994). Finally, we would like to remark that the AII does not thus measure actual HRD effectiveness but its effectiveness as perceived by the respondents.

One of the characteristics by which the AII is calculated is the realization of expectations. Approximately a third of the respondents had not completed this question. There are different ways of dealing with missing values. Firstly, the decision can be made to use only complete cases, which means that the data from incomplete cases are not taken into consideration. Secondly, it can be decided to use the incomplete cases, and to complete them by imputation, meaning that a particular value is filled out instead of the missing values. The usual value for this is the random average (Little & Rubin, 1987). In this survey too, in order to be able to use the data from those respondents who had not stated to what degree their expectations had been realized, the average score for the realization of expectations was calculated and entered.

Predictive Variables. In the questionnaire for the evaluation commissioned by Vetron, several questions were also included relating to specific characteristics that have an influence on HRD effectiveness; the so-called predictive variables . This study examines whether a number of these variables can explain the differences in the AII scores of the participants. To this end it will study whether there are significant differences between groups of participants when one of these variables is conditioned. On the basis of what is described in the 'conceptual framework' section, the impact of the following factors on the AII score is examined:

Setting Training Goals. The study examines whether the setting or not setting of objectives for the HRD assignments has an impact on HRD effectiveness. The expectation is that setting objectives will have a positive impact on HRD effectiveness. The setting of specific objectives is expected to promote HRD effectiveness more than the setting of general objectives.

Involvement of Stakeholders. Another factor that will be examined in the study is the involvement of stakeholders in the HRD assignment. The position of respondents and the functions that they hold are expected to make a difference as regards actual or perceived HRD effectiveness. The questionnaire identifies the following positions: contractor, purchaser, adviser, co-developer, internal organizer/coordinator, participant, and the residual category 'other'. The respondent has the opportunity to indicate more than one position. As far as the function of the respondents is concerned, ten different categories of function are mentioned in the questionnaire, namely: director/works manager, line/departmental /divisional manager, head of personnel (sector/division), personnel officer, head of the HRD department, HRD officer, HRD coordinator within the HRD department, teacher/instructor/trainer, internal adviser, and external adviser. If the function of the respondent does not come under any of these categories, the respondent could fill out his function in the residual category 'other'.

Form of HRD Programs. In this study a distinction is made between in-company programs and individual programs. In-company programs are those that are specially made for a particular company, in which only employees from that company participate. In the case of an individual program, individual employees from different companies take part. The expectation is that in-company programs will be more effective, because they are tailored to the specific situation of the company where the participant works.

Content Field of HRD Programs. The field to which the program relates makes a difference to HRD effectiveness (Wognum, 1999). The questionnaire identifies ten different HRD fields, namely: languages, management, communication, commerce, employee participation, marketing, technology, automation, HRD theory, and other fields. It is thus expected that there will be a difference in HRD effectiveness between these fields.

Preparation of the Data. Before the analyses were conducted, the data file was adjusted on a number of points in order to be able to answer the research question. In the case of the question about the function of the respondent, it emerged that many people had indicated in the category 'other' that they were a member of the works council. For this reason, a separate function category, 'member of the works council' was added. Something similar occurred with the question about the content field of HRD. There proved to be many programs with the combination of management and communication; the combination of communication and commerce also occurred frequently. For this reason these combinations were added as extra categories. Based on the data received about the position of stakeholders, the respondents were divided into four groups according to the stage in which they had been involved in the HRD assignment. The first group consists of respondents who were only involved in the preliminary stages of the program: contractors, purchasers and advisers. The second group compris es respondents who were only involved in the actual implementation of the HRD assignment. This includes co-developers, internal organizers/coordinators and participants. The third group consists of respondents who were involved in both the preliminary stages and the actual implementation. The fourth group is made up of the remaining respondents, of whom it is not known in which stage of the HRD assignment they were involved. Phillips (1997) states that those people who were closely involved

in the implementation of the program are inclined to attribute all the changes or improvements in the participant's behavior to the program itself. People who are further removed from this are also able in their assessment of the program to take into consideration other factors that influence these changes or improvements. On the basis of this, those who were involved only in the actual implementation of the HRD assignment are expected to give a more positive assessment of HRD effectiveness than the rest.

Data Analysis. The data were analyzed with SPSS. The Independent Samples T-test was used to establish the difference between individual and in-company programs and the difference between setting or not setting goals in advance.

A One-way ANOVA was used to see if there was a difference between those who were only involved in the preliminary stages, those who were involved in both the preliminary stages and the actual implementation of the HRD assignment, those who were only involved in the actual implementation of the HRD assignment, and those of whom it is not known in which part of the HRD process they were involved. This also applies to the difference between the function of the respondents, the difference between the fields of HRD and the difference in the extent to which goals were set.

If significant differences between the groups were found in the analysis of variance, a Post Hoc analysis was conducted using the Bonferroni procedure to see which groups differed significantly from the others. This procedure compares the average of each group with every other group by means of a T-test.

All the analyses were conducted with a p-value of .05.

Results

The results of this study show which of the characteristics impact on the All-score of the participants.

Setting HRD Goals. The All-scores of the programs that set HRD goals are higher (M = 65.4, SD = 12.8) than the All-scores of programs for which no objectives were set in advance (M = 62.2, SD = 14.0). The Independent Samples T-test indicates that this difference is significant, $t(2742) = -3.01$, $p < .003$.

Also investigated was whether the setting of general or more specific objectives has an impact on the All-score. The results of the One-way ANOVA show that there is a significant difference, $F(4, 2496) = 32.851$, $p < .00$. In order to check to what degree of objective setting the All-score differs, a Post Hoc analysis was conducted using the Bonferroni procedure. The results of this are shown in Table 1.

In Table 1 the All-score of the type of objective from the first column is compared with the All-score of the type of objective from the first row. The value that is shown in the table is the Mean Difference (MD). This MD was calculated by subtracting the average of the All-score of the type of objective in the first column from the average of the All-score of the type of objective in the first row. The significant differences from this column are marked with an asterisk.

Table 1. *Post Hoc analysis (Mean Differences) of the types of objectives affecting the All scores.*

	Very general	General	Neither general nor specific	Specific	Very specific
Very general	-	-2.83	-2.45	-5.97*	-13.98*
General		-	.38	-3.14*	-11.15*
Neither general / nor specific			-	-3.52*	-11.53*
Specific				-	- 8.01*
Very specific					-

$p < .05$.

It can be deduced from Table 1 that the average All-scores for the programs for which the objectives that were set are very general, general or neither general/nor specific are significantly lower than the average All-scores for programs for which the objectives are specific or very specific. It is striking that the average All-scores also differ significantly for programs in which the objectives that were set are specific and the programs in which the objectives that were set are very specific (MD=-8.01, p<0.000).

Involvement of Stakeholders. The results of the One-way ANOVA showed that there is a significant difference between the different stages of involvement, $F(3, 2742) = 3.080$, $p < .026$. In order to check in which stages the effectiveness indicator differs, a Post Hoc analysis was conducted using the Bonferroni procedure. The results of this are shown in Table 2.

Table 2. *Post Hoc analysis (Mean Differences) of stage of involvement affecting the All scores.*

	Preliminary stages	Training program	Both	Unknown
Preliminary stages	-	.713	.002	5.36*
Training program		-	-.711	4.65
Both			-	5.36*
Unknown				-

p < .05.

Table 2 shows that those who were only involved in the preliminary stages are more positive about HRD effectiveness than are those of whom it is not known in which stage of the training process they were involved (MD = -5.36). This difference in average All-score is significant (p < .025). Those who were involved in the entire training process also assessed HRD effectiveness more positively than did those of whom it is not known in which stage of the training process they were involved (MD = -5.36). This difference too is significant (p < .024).

Subsequently, a one-way ANOVA analysis shows that there is a significant difference between the respondents when grouped on the basis of function F(11, 2727) = 6.401, p < .00. In order to check for which functions the average All-score differs significantly, a Post Hoc analysis was conducted using the Bonferroni procedure. Only the columns with significant results are shown in Table 3.

From Table 3 it can be deduced that the average All-score for the function of director/works manager is significantly lower than the average All-score for the head of the HRD department (MD = -5.4, p<0.000), the HRD officer (MD = -4.67, p<.000) and the HRD coordinator within the HRD department (MD = -5.07, p<.008). Other siginifant differences were found between at one side the line manager, the personnel officer, and the category others, and on the other side the head of the HRD department, HRD officer, and HRD coordinator. The second group has significantly higher All-scores, which imply far more positive perceptions of HRD interventions.

Table 3. *Post Hoc analysis (Mean Differences) of the type of functions affecting All scores.*

	Head HRD dept.	HRD officer	HRD coordinator	Other
Director	-5.40*	-4.67*	-5.07*	-1.15
Line manager	-5.75*	-5.03*	-5.43*	-1.51
Head of personnel	-4.59*	-3.86*	-4.26	-.34
Personnel officer	-4.54*	-3.84*	-4.22	-.30
Head HRD dept.	-	.73	.33	4.24*
HRD officer		-	-.40	3.52*
HRD coordinator			-	3.92
Teacher				2.39
Internal advisor				1.68
External advisor				1.28
Other				-
Member works counsil				

p < .05.

Form of HRD programs. The mean and the standard deviation for both groups were calculated to investigate whether there is a difference between the group of students who received an in-company program and those who received an individual program. The All-score for in-company programs (M = 65.11, SD = 12.99) is lower than the All-score for individual programs (M = 66.35, SD = 14.95). The Independent Samples T-test, however, indicated that this difference is not significant, t(2413) = -1.644, p < .10.

Content field of HRD Programs. It was investigated whether there is also a difference in the average All-score between the different content fields of HRD. The One-way ANOVA analysis reveals that here too there is a significant difference, F (11, 2734) = 4.836, p < .00. In order to check for which fields of HRD the average All-score differs, a Post Hoc analysis was conducted using the Bonferroni procedure. Only the column with significant results are shown in Table 4.

From Table 4 it can be deduced that programs in the field of languages are found to be significantly more effective than programs in the fields of management (MD = 5.81, p<.000), communication (MD = 4.16, p<.003), commerce (MD = 6.66, p<.000), participation in decision-making (MD = 6.99, p<.000), management and communication (MD = 6.32, p<.017) and programs from the residual category 'other' (MD = 5.89, p<.000).

Conclusion and Discussion

The goal of this study was to gain a greater insight into characteristics that explain, or influence, HRD effectiveness. Firstly, the influence of setting or not setting objectives in advance was studied. Here it was expected that setting objectives in advance would have a positive influence on the All-score. At the same time, the setting of specific objectives was expected to lead to a higher All-score than the setting of general objectives. The results of the analysis correspond with these expectations.

Table 4. *Post Hoc analysis (Mean Differences) of the types of content fields affecting All scores.*

	Languages
Languages	-
Management	5.81*
Communication	4.16*
Commerce	6.66*
Marketing	7.25
Technology	4.74
Automation	9.49
HRD Theory	4.82
Participation in decision making	6.99*
Other	5.89*
Management & Communication	6.32*
Management & Commerce	1.51

* $p < .05$.

Another characteristic examined in the study was the involvement of stakeholders in the HRD assignment. It was expected here that those who were involved only in the actual implementation of the HRD assignment would give a more positive assessment of HRD effectiveness than would the other people involved. The results indicate that respondents who were involved only in the preliminary stages of the program were more positive about HRD effectiveness than were those of whom it was not known in which stages of the training process they had been involved. The respondents who were involved both in the preliminary stages and in the program itself also gave a more positive assessment of HRD effectiveness than did those of whom it was not known in which stages of the training process they were involved. It is striking that no significant differences were found with the respondents who had been involved only in the program itself. This is probably due to the relatively small size of this group of respondents. A follow-up study in which more respondents from his group are involved may well produce significant results.

The function of the respondent was also considered, and here it was expected that there would be a difference in All-scores between the function categories distinguished, due to the different perspectives of those involved. Those who are directly involved in the programs will look mainly at the program itself, how it progressed and whether the learning objectives of the program were attained. Those who are not directly involved in the programs will look more at the effect of the program on the functioning of the participants. The results reveal that respondents who are directly involved in the programs, such as HRD officers, heads of HRD departments and HRD coordinators within HRD departments, are more positive about HRD effectiveness than are respondents who are not directly involved in programs, such as directors/works managers, line/departmental/divisional managers, heads of personnel, personnel officers and respondents from the category 'other'. This is in line with the result, found by Wognum (1999), indicating that HRD officers are more positive about the effects of HRD programs than other stakeholders. On the other hand, no significant differences were found with the group of respondents who were involved only in the program itself. This is probably due to the relatively small size of this group of respondents. A follow-up study in which more respondents from this group are involved may well produce significant differences.

Further, the form of the HRD program was examined. It was expected that in-company programs would be more effective than individual ones. The results, however, reveal that this is not the case: individual programs prove to be more effective than in-company programs. This corresponds with the results found by Wognum (2001a). The differences in the All-score are - although close to significance - not significant. It would therefore be advisable to carry out this study using a random sample with a higher percentage of individual programs. In the study presented here six times as many in-company programs were involved as individual programs.

Finally, the field to which the programs relate was examined; here there was expected to be a difference in All-score between the different fields, mainly because of the differences in the knowledge and skills to be acquired. The results reveal that there are indeed differences. Programs in the field of languages appear to be perceived as more effective than programs in the fields of management, communication, commerce, employee participation,

management and communication and programs from the residual category 'other'. This is probably due to the fact that the content of language programs is more concrete and more directly applicable than those of the other types of programs. One striking result is that both communication programs and commerce programs were found to be less effective than language programs, but that this was not the case in a combination of these programs. A possible explanation for this is that in this study there were fewer programs in the field of the combination of communication and commerce than programs in the individual fields.

The results of this study provided us with some more insights into characteristics that are able to enhance HRD effectiveness. Based on this, it is now possible to further fill out the HRD effectiveness model as depicted in earlier papers (Wognum, 2001b) with the predictor variables found.

In this study, T-tests and One-way ANOVAs were applied to assess the effect of the individual explaining variables separately. As a result, it is possible to draw conclusions as to whether or not they influence the All-scores. However, all these variables are treated as if they were independent, and no second-order effects were taken into account. In our study this might not be the case, so further research is needed. In general, when a design consists of more than two dependent variables, a MANOVA study is conducted to gain more insight into the relations between the variables and the All-score. Conducting a MANOVA will therefore be the next step in our research project.

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Expanding the Transfer of Training Domain of Structured On-the-Job Training

Chan Lee
Jin Hyuk Kim
The Ohio State University

Ronald L. Jacobs
The Ohio State University

Many researchers and practitioners in human resource development (HRD) field presumed there was a close match between structured on-the-job training (OJT) and the actual task on the job, but structured OJT has not been researched in depth in the far transfer of training. Thus, this paper proposes that structured OJT can be used not only in near transfer of training but also in far transfer of training. Yet how to design structured OJT programs to achieve far transfer, especially when the task is relatively unknown, remains an issue for future HRD research and development.

Keywords: Transfer of Training, On-the-Job Training, Planned Job Training

Transfer of training continues to be an area of major interest among human resource development (HRD) scholars and practitioners. Underlying the concerns about training costs is the fundamental organizational need to ensure that trainees will be able to use what was learned during the training back on their jobs. Bassi, Gallagher, and Schroer (1996) state that employers express concerns about their training expenditures. In the authors' study, private sector employers spent $25.2 billion on direct costs associated with training, while private employers' indirect training costs (wages, salaries, and fringe benefits) are estimated to be $27.1 billion. Comparable estimates of federal government agencies' expenditures on direct and indirect costs for training civilian government employees are $1.2 billion and $1.8 billion, respectively. Adding the estimates in these two sectors together indicates employers have spent $26.4 billion on direct costs and $28.9 billion on indirect costs for training in 1995, bringing the total to $55.3 billion.

While there has been much attention paid to the transfer of training in general, how the topic relates to structured on-the-job training (OJT) has received little attention, if any. Many researchers have simply presumed that since there was a close match between the training and the task, transfer of training was not a particular issue of concern (Jacobs & Jones, 1995). However, upon closer examination, it has been generally assumed that structured on-the-job training has been used to achieve near transfer of training situations only. This viewing of structured on-the-job training implies that transfer of the training has been restricted within the application of the types of tasks and in the setting prescribed by the training. An important issue here, and one that has received little attention in the HRD literature is the extent that training in one domain may generalize to a different or unintended context.
This paper proposes that structured on-the-job training (OJT) can be used in both *near* and *far* transfer of training situations; it consists of three parts. The first part discusses transfer of training, focusing on near and far transfer. The second part discusses the transfer of training domain of structured OJT. The final part discusses implications related to far transfer of training and structured OJT.

Near Transfer Versus Far Transfer of Training

Transfer of training refers to the extent to which individuals can apply what was learned in one situation to another situation (Baldwin & Ford, 1988; Holton, Bates, Seyler & Carvalho, 1997). Transfer of training involves applying the task to contexts other than those used in the training setting. Trainers expect the trainee to learn the new behaviors and use them back on the job. The literature suggests that the extent to which transfer of training occurs depends on several sets of variables. For instance, Baldwin and Ford (1988) proposed a framework that identified the variables in the training design (principles of learning, the sequencing of training material, and the job relevance of the training content), the trainee characteristics (ability or skill, motivation, and personality), and the work environment characteristics (supervisory; constraints and opportunities to practice learned material on the job).

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As Figure 1 shows, the greatest importance in determining the transfer of training is the relative match between the training setting and the work setting (Jacobs & Jones, 1995). That is, the principle states that the greater the similarity between the two settings, the greater likelihood the transfer of training will occur. The training setting should have the same critical features, including the physical attributes, the various work-related cues, and social settings that will be encountered later on in the actual work setting. Some of these features might be deduced to their simplest forms with the expectation that the training can focus on these alone, with the elimination of extraneous information. However, the extent to which the match exists, and by extension, the extent to which transfer of training occurs depends in part on the nature of the work and the expected training outcomes.

Transfer of training can be categorized in several ways. For example, Royer (1979) identified some bi-polar transfer of training classifications, such as lateral and vertical, specific and non-specific, literal and figural, and near and far dimensions. Royer (1979) emphasized viewing those various constructs on a continuum rather than two distinct phenomena. As shown in Figure 2, near and far transfer of training can be compared in terms of the relationship between the work task and emphasis of training design. Near transfer requires a close match between training and task content, a close match between the training and task outcomes, and emphasis on specific concepts and skills. In contrast, far transfer requires an approximate match between training and task content, and an approximate match between training and task outcomes, and emphasis on general concepts and skills.

The characteristics of near transfer suggest trainees should apply known sets of knowledge and skills. For example, after an employee learns the repair procedures for a Hyundai engine, they repair only that one particular Hyundai engine once they are back on the job. Far transfer, on the other hand, is akin to having trainees learn more general concepts and principles, which might be applied to a wider set of contexts than those necessarily presented in the training setting. For example, an employee might learn to repair a Hyundai engine, but for far transfer to occur, the trainee would be able to transfer what was learned about engines in general during training to an array of other engines, such as Chrysler, Ford, or Honda. Far transfer suggests by learning the fundamental aspects of something along with specific skills, there is a greater chance for applying that information to more than one setting later on. Thus, the greater similarity between the training and working settings suggests relatively near transfer of training. Less similarity suggests the need for far transfer.

The concepts of near and far transfer of training are frequently discussed relative to training objectives, transfer theory, and learning requirements. In terms of the training objectives, the distinction between the types of transfer is related to types of skills transferred (Clark & Voogel, 1985). Clark and Voogel (1985) distinguished between procedural learning objectives, in which concrete and practical knowledge of relatively simple routines are included, such as something that can be learned as a step-by-step sequence of behaviors and a declarative learning objective, in which concepts and principles have formal properties. Procedural types of training objectives tend to involve near transfer while declarative training objectives are more likely to contribute to far transfer.

In terms of transfer theory, the literature has focused on two kinds of transfer of training theories. For example, Goldstein (1993) describes two transfer theories necessary for explaining near and far transfer: the identical-elements and principles theories. The identical elements theory suggests that the transfer of training occur when what is being acquired during the training is identical to what the trainee performs on the actual context. According to the theories, transfer will be maximized to the extent to which the tasks, equipment, tools, and environment at the training setting are similar to those encountered at the actual work setting. In contrast, the transfer-through-principle theory proposes that the general principles necessary to learn a task should be emphasized to solve the problems in the transfer task. Regarding designing training environment, this theory is not highly concerned with similarity between the training setting and the actual work setting. Therefore, near transfer enables trainees to meet the relatively known predictable conditions of their job and apply their knowledge and skills, while in far transfer, the trainees are expected to learn concepts and principles to deal with situations not always encountered during the training.

Finally, research suggests that near and far transfer of training requires different learning requirements. The requirements for near transfer depend mostly on the similarity between the training and the task. However, achieving far transfer of training requires additional considerations. Laker (1990) states far transfer depends on whether the training includes information about the assumptions underlying the skills and behaviors they are learning. In addition, a number of studies have suggested that the more trainees practice in different contexts and use novelty in their practice exercises, the more effective the far transfer (Ellis, 1965; Goldstein, 1986; Baldwin & Ford, 1988). Clark and Voogel (1985) stress the importance of incorporating a variety of situations and problems in order to develop and apply skills.

Structured OJT and Transfer of Training

On-the-job training refers to a form of training that occurs at the workplace during the performance of a job rather than in a classroom setting (Jacobs & Jones, 1995; Rothwell & Kazanas, 1994). OJT is the most widely used method of delivering training to a novice employee by an experienced employee today, and is one of the most important components of learning in the workplace (Jacobs, 1999; Rothwell & Kazanas, 1990). Despite its frequency of use, most OJT is unfortunately informal or unstructured in nature, and therefore has received serious criticism for often being haphazard, incomplete, and unpredictable (Jacobs, 1990; Jacobs & Jones, 1995; Rothwell & Kazanas, 1994). Structured OJT has recently emerged as a subject of interest in the HRD field. In contrast to informal or unstructured OJT, structured OJT uses a planned approach to the training (Jacobs & Jones, 1995). Structured OJT is generally referred to as a planned process conducted by an experienced employee for the purpose of providing the knowledge and skills to perform tasks to a novice employee at or near the workplace.

When there is a greater match between training setting and job setting, then trainees can transfer what they have acquired to the job more successfully. Structured OJT has been perceived as an effective training approach in part because of its potential to achieve transfer of training. It is one of the benefits of structured OJT that trainees have much more possibility for transfer than classroom training (Jacobs & Jones, 1995). Since structured OJT is conducted near or at the job setting, trainees are available to use the same equipment, tools, and environment they use to perform their actual tasks. Structured OJT enables trainees to practice the task during training because the task is similar in both training and transfer. Because of the inherent association between structured OJT and the feature of transfer, it is commonly believed by managers and HRD professionals that structured OJT should only be used in near transfer of training situations.

Figure 3 presents how structured OJT differs by the nature of the task -- established or varying -- and near or far type of transfer of training. The figure also shows examples of these dimensions. The classifications between near and far transfer and established and varying tasks provide an approach to the transfer of training domain of structured OJT. The established and varying classification provides a complementary dimension to near and far transfer. While the near and far transfer is a classification about the conditions under which training and transfer tasks are performed, the established and varying task is a classification about the nature of the tasks themselves. Established tasks involve the specific procedural training content and sequence. In contrast, varying tasks involve the complexity of general information in training content and sequence. The combination of a near or far type of transfer and the established or varying tasks can provide a means of characterizing transfer of tasks on structured OJT.

Established tasks and near transfer of training (ex. 1, Figure 3) have characterized most structured OJT programs. In this instance, the training focuses on units of work in which the content and sequence are fixed so that the trainee is expected to perform closely matching job tasks. Established tasks and far transfer (ex. 2) focuses on units of work in which the content and sequence are fixed, but the trainee is expected to perform across a set of related tasks. In this example, the training focuses more on having trainees learn reliable principles that govern relationships among variables. This combination should attract most attention from organization managers since far transfer would seemingly reduce the amount of training early on.

The combination of having varying tasks and near transfer (ex. 3) suggests that the training focuses on units of work in which the content and sequence are changeable, for the purpose of performing closely matching job tasks. At first glance, how to achieve such a combination might appear illogical, but it points to situations where training is provided for complex, constantly changing work situations.

Finally, in considering varying tasks and far transfer (ex. 4), the training focuses on units of work in which the content and sequence are changeable to perform a set of related job tasks. In the far transfer and varying task training provides broad principles, often drawn from the underlying structure of the task. This broad base can be transferred in more than one task situation. Given these combinations, it becomes necessary to present a level of transfer, which focuses more on general principles and concepts, followed by embedding of suitable training objectives and content for the desired level of transfer.

Discussion

This paper proposes that structured OJT can be used for both near and far transfer of training. Several issues

determine whether structured OJT can actually be used for far transfer. First, to achieve far transfer, structured OJT should be considered as a system such that the training inputs, training process, training outputs, and organizational context are considered. Even though it may be believed that training outcomes from far transfer are less predictable, using the systems view to implement structured OJT would enhance the possibility for the most effective training outcomes.

Second, a structured OJT program is viewed as an investment from which the organization can expect a return (Jacobs & Jones, 1995). When an organization needs principle-focused training to apply to multiple job issues or when training workforce in a broader perspective, for example in a nation, is needed, structured OJT used in far transfer would be a cost-effective approach. Integrating the principle into structured OJT can achieve job outcomes in both near transfer and enhance the potential far transfer.

Third, Versloot and De Jong (1994) and De Jong (1991) propose forms of structured OJT that possess varying levels of structuring and include on-site practice, on-site instruction, and on-site study. In certain circumstances it can be better to structure less, than to structure too extensively (De Jong, 1991; Versloot & De Jong, 1994). Regarding this issue, less structured formation could be appropriate for far transfer of structured OJT.

Fourth, Lohman (2001) indicates that structured OJT might be used for both deductive and inductive training strategies. Inductive training strategies seem more appropriate for far transfer of structured OJT. It requires trainees to become critical thinkers, effective problem solvers, and independent learners, skills that enable them to continuously learn and improve their performance instead of receiving information from the trainer.

Finally, to achieve successful far transfer, trainees can be encouraged to discuss and apply the training in a context they choose. When trainees participate in the program design, the training would be expected to have a closer match between the employee's interests and the organizational needs. This approach might enable trainees to better meet current and future organizational needs.

Transfer of training is one of the primary concerns for managers and HRD professionals. Although structured OJT is now widely used as an effective training method, it has been used within a limited domain of near transfer of training. This paper sought to explore the transfer of training domain of structured OJT to include far transfer. Further research and experience are required to further examine the various issues related to designing structured OJT for far transfer of training.

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Figure 1. Potentiality of Transfer of Training Based on the Relative Match (Source: Based on Jacobs & Jones, 1995, p. 36.)

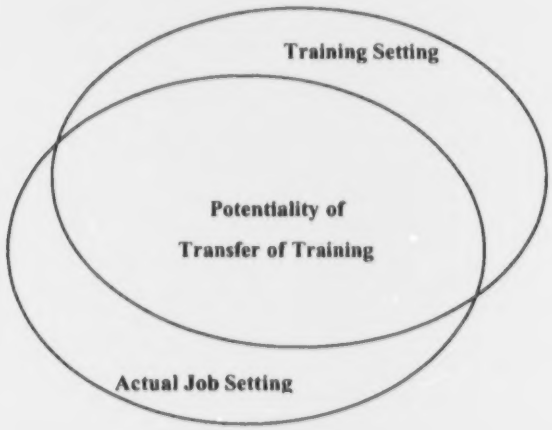

Figure 2. Comparing Near and Far Transfer of Training (Source: Kim & Lee, 2001, p. 445.)

	Near Transfer	**Far Transfer**
Relationship between the training content and work task	Close match such that the training content and outcomes relate to one work task.	Approximate match such that the training content and outcomes relate to a set of related work tasks.
Training design	• Specific concepts • Procedures • Problem solving • Decision making	• General concepts • Broad principles • Problem solving rules • Decision making rules

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Figure 3. Comparing Types of Tasks and Transfer of Training (Source: Kim & Lee, 2001, p. 448.)

	Near Transfer	**Far Transfer**
Established Task	**ex 1.** Training focuses on units of work in which the content and sequence are fixed, to perform closely matching job tasks. • Installing tires in a car	**ex 2.** Training focuses on units of work in which the content and sequence are fixed, to perform related job tasks. • Learning Microsoft Word and apply the conceptual understanding and skills to WordPerfect
Varying Task	**ex 3.** Training focuses on units of work in which the content and sequence are changeable, to perform closely matching job tasks. • Determining customers' insurance needs	**ex 4.** Training focuses on units of work in which the content and sequence are changeable, to perform related job tasks. • Learning principles of a discussion and then apply them to the understanding of facilitating team meetings

Strategic HR Orientation and Firm Performance in India

Kuldeep Singh
Indian Institute of Management, Indore

This study tests the relationship between strategic HR orientation and firm performance. The study has been conducted to add to the growing empirical evidence in this field. The study has been carried out in the Indian settings, where the importance for human resources has gained currency in the last decade. Results show that there is a significant relationship between the strategic HR orientation and firm performance.

Keywords: Strategic HR, HR- Organization Performance, HR in India

As firms grow and evolve, their strategies and approaches to achieve human resource development need to be changed. If human resources (HR) function has to be effective, then it must grow and respond to the firm's new needs and the demands of the environment. This growth in HR function has to be in terms of adoption of new systems, policies and practices which will fit very well with the emerging needs of the firm. One of the main objectives of human resources development program is to provide a firm with employees having the right type of the skills, knowledge, attitudes and outlook.

Problem Statement and Purpose of Study

The roots of personnel function in India can be traced back to early 1920s when the Tata group implemented employee welfare measures like provident fund and leave rules. The Trade Union Act of 1926 gave formal recognition to the worker unions. The Royal Commission of 1932 recommended the appointment of Labor Officers. After independence, the Factories Act of 1948 outlined the welfare measures for workers as also the roles and responsibilities of Labor Welfare Officers. All these developments laid the foundation of personnel function in India (Balasubramanian, 1994, 1995). In the 1950s, two professional bodies namely, Indian Institute of Personnel Management (IIPM) and National Institute of Labor Management (NILM) were set up. In the 1960s, the scope of personnel function began to expand beyond the welfare aspects with three areas of labor welfare, industrial relations, and personnel administration developing as the constituent roles of the emerging profession (Venkata Ratnam and Shrivastava, 1991). In the 1970s, the focus of the personnel function shifted towards greater organizational efficiency and effectiveness issues. In the 1980s, issues like human resource management (HRM) and human resource development (HRD) started invading the domain of personnel function. The setting up of two professional bodies like National Human Resource Development Network (NHRDN) in 1985 and Academy of HRD (AHRD) in 1990 further augmented the evolution of personnel function. These two bodies accelerated the shift of personnel function towards the human resources management and development orientation. Firms across the country responded by adopting HRM/ HRD nomenclature for their personnel function and appointed professionals to head these functions.

Today's business environment in the Indian context after initiation of economic reforms in 1991 requires that HR function play a strategic role. This strategic perspective to HR represents a shift from the traditional view of human resource management and development that emphasized individual outcomes such as morale, motivation and job satisfaction, towards a firm level emphasis with focus on HR's contribution to firm performance. In other words it means that HR function needs to get integrated with business strategy like other functions. However, even though HR function has been in use in Indian firms during the last twenty five years, but it is only in the recent few years that some efforts have been made by some firms to accord HR a strategic status. This shift in the qualitative positioning of HR can be mainly attributed to the fact that today's firms have to live, survive and thrive in an information centered milieu. Moreover, after the recent liberalization of economic policies, the increased level of competition by overseas firms has put a lot of pressure on the human resources function in domestic firms to prepare and develop their employees so that these firms are able to compete with overseas firms in skills, efficiency and effectiveness (Krishna and Monappa, 1994; Venkata Ratnam, 1995; Budhwar and Sparrow, 1997; Sparrow and Budhwar, 1997). However, till date no empirical work has been carried out in the Indian context to study the impact of strategic HR orientation on firm performance. It is in this context that the present study was undertaken to gain an understanding of strategic orientation of HR prevalent in the Indian firms as well as its relationship with firm performance. Further, it would be of interest to Western firms to know what is happening in India in the HR field as they find India an attractive place to invest in because of its huge domestic market (Datt and Sundharam, 1999).

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Theoretical Framework

Strategic human resources management has emerged as a dominant area of research among scholars and practitioners in different parts of the world. This is apparent from the recent literature on international human resource management (e.g., Schuler, Dowling, and De Cieri, 1993), as well as from recent reviews of the trends in the US (Dyer and Kochan, 1996), Canada (Betcherman et al., 1994), and the UK (Lundy, 1994; Truss and Grattan, 1994). The argument that better human resources planning is the basis of superior business performance has received support from various angles, even from authors whose overall work reflects a critical attitude to SHRM (Mueller, 1996). It has become a widely held premise that people provide organizations with an important resource of sustainable competitive advantage (Prahalad and Hamel, 1990; Pfeffer, 1994; Wright, McMahan, and McWilliams, 1994) and that the effective management of human capital, not just physical capital, may be the ultimate determinant of organizational performance (Adler, 1988; Reich,1991). Ferris et al., (1990) found that construction firms with higher levels of strategic, including HR, planning have achieved higher organizational performance (see also Ferris, 1984; Cook and Ferris, 1986). Nkomo's (1987) study did not find significant differences between the performance of the firms using formal human resource planning and firms that did not. Delaney et al. (1988) surveyed US firms but could not establish a strong statistical correlation between HR programs supported by senior management and firm performance. Abowd (1990) found that the degree to which compensation for managers was based on an organization's performance was significantly related to future performance.

Gerhart and Milkovich (1990) found that pay mix i.e. pay structure having a fixed component and performance linked variable component, was related to organizational performance. Leonard (1990) found that organizations having long-term incentive plans for their executives had larger increases in return on equity over a four year long period than other organizations. Further, the studies show that comprehensive selection and training activities are frequently correlated with both productivity and organization performance (Russell et al., 1985; Kleiner et al., 1987; Terpstra and Rozell, 1993; U.S. Department of Labour, 1995). Huselid (1993 & 1995) identified a link between the organizational level outcomes and groups of high performance work practices.

Snell (1991) found that the effect of input control, behavior control and output control on sales growth and return on assets (ROA) was contingent on the clarity of cause-effect re lationship and standards of performance. Delaney and Huselid (1996) found positive associations between human resource management practices like training and staffing selectivity, and perceptual performance measures. In another study conducted by Huselid, Jackson, and Schuler (1997), significant correlation between strategic HR effectiveness and employee productivity, cash flow, and market value was reported.

In summary, the above studies indicate a positive relationship between HR practices and firm performance. However, all the studies have been undertaken in US settings and elsewhere, and to add validity to this growing stream of research, more such studies in diverse settings like India need to be conducted. Hence the present study was undertaken to find out the linkages between the Strategic HR orientation and firm performance in the Indian context.

Objective of Study and Method

The main objective of the present study was to ascertain the relationship between strategic HR orientation and firm performance in the Indian settings. The various variables used to measure these two constructs are described as follows.

Strategic HR Orientation

Though there are many HR practices which may have impact on the firm performance, but for the purpose of present study, HR practices related to manpower planning, recruitment and selection, evaluation, compensation, employee training and staffing were selected. The selection of these HR practices was based on the literature support as well as prevalence of these in the Indian firms as indicated during the pilot study.

In this study, I defined strategic HR orientation as "the alignment of HR planning, selection, evaluating, compensating, developing, and staffing practices with the business strategies of the firm". Firms, which develop a strong strategic HR orientation, will make use of bundle of HR practices to transform employees as the basis of sustainable competitive advantage (Lam and White, 1998). The process of creating sustainable competitive advantage has been cited recently by theorists of strategic management to describe how firms can trace their successes to their internal stock of resources (Prahalad and Hamel, 1990; Barney, 1991). Viewed from this

perspective, human resources get treated at par with technological or physical resources in terms of having the same strategic potential. This strategic perspective has led Wright and his colleagues to urge organizations to focus on the serial steps of recruitment, compensation, and training in order to attract and develop competent employees (Wright and Snell, 1991; Wright and McMahan, 1992).

Following above approach, existence of a formal written human resources plan is identified as the first critical strategy that strategic HR oriented firms will employ as the existence of a written HR plan based on the strategic business plan of the firm will help the firm in anticipating and planning for acquisition of strategic competencies. Mere planning will not work unless efforts are made to acquire those strategic competencies. Therefore, strategic HR oriented firms will use selection practices to "locate relevant competencies and attract them to the organization" (Wright and Snell, 1991). Simply having competent employees will not ensure high performance unless a system to evaluate the working of those competencies is in place. Therefore, strategic HRM oriented firms will employ performance evaluation system linked to strategic goals. Competent employees are not necessarily loyal. To retain competent employees, firms will be required to have a competitive level of compensation and fringe benefits (Balkin and Gomez-Mejia, 1990; Gerhart and Milkovich, 1990). Thus, firms will use strategic objective linked compensation system to improve employee retention and firm performance. However, to sustain high performance, a firm needs further developmental investments to maintain the level of superior HR competence (Magnum, Magnum, and Hansen, 1990). Therefore, a firm in order to sustain high performance needs to employ strategic goal based employee training. Finally, firms in order to sustain high performance despite compelling economic and technological pressures can do so if the "workforce can respond quickly, easily, and cheaply to changes" (Atkinson, 1985a). Therefore, strategic HR oriented firms need deployment of staffing pattern based on the strategic needs.

Firm Performance

In conducting studies of corporate performance, researchers of strategic management have recommended using multiple measures of corporate performance (Venkatraman and Ramanujam, 1986). Consequent to this, three measures of corporate performance were used in this study. The first measure was *return on assets*. A firm's return on measure is an indicator of accounting profitability. It was computed by dividing the operating income by total assets in 1993. The second measure used was *growth in sales*. It was computed by averaging out annual growth of sales between 1995 and 1998. This measure indicates how well customers accept the firm's products or services. Third measure used was *price- cost margin*. Price-cost margin was calculated by dividing Profit before Depreciation, Interest, and Taxes (PBDIT) by net sales and calculating average for the period 1995 to 1998 to take care of the variations.

Impact of Strategic HR orientation on firm performance

Does strategic HR orientation have an impact on firm performance? Yes, at least for two compelling reasons. The *first* is in the form of cost advantage enjoyed by the strategic HR oriented firms due to reduction in employee absenteeism and turnover rates. An employee remaining absent or frequent quitting entails higher cost for firms. The annual cost of unscheduled absence has been estimated to range from $ 250 to $ 500 per employee (Cascio, 1995). In case of the turnover, the firm incurs additional cost in term of advertising and hiring to fill the vacant position. Thus, there will be an increase in replacement costs in terms of additional recruiting and training (Cascio, 1995). These replacement costs can be minimized if firms incorporate HRD activities into their strategic business plans so that they can rely more on existing employees to fill vacant positions (Friedman and LeVino, 1984).

The *second* reason is that strategic HR oriented firm will lay greater emphasis on the development of their employees due to stronger emphasis on the recruitment, training, and compensation of the employees. The development of employees into a highly competent workforce has been argued to produce competitive advantages that are more valuable and also more difficult to imitate (Pfeffer, 1994). For these reasons, a strong strategic orientation may bring significant economic benefits to the firms (Gatewood and Field, 1994; Cascio, 1995).

Research Methodology

Sample

The database for the current study was drawn from firms listed in the BT (Business Today) 500 Indian firms. This listing was selected for three reasons. One, all the firms representing major domestic industries in India ranging from automobiles and auto components, cement, iron and steel, hotels, chemicals, consumer durable, consumer non-

durable, engineering, financial services, info-tech, pharmaceuticals, paper and power etc., are listed in it. Two, it may be helpful in generalizing findings of the study across a broad spectrum of firms. Three, this database regarding Indian firms is only authentic source available for undertaking such type of study.

Criterion for Selection

A firm was included in the sample if its name figured consecutively for a period of three years during the 1995, 1996 and 1997 BT 500 listing. A firm is included in the listing for three years if it has consistently performed on parameters like profits, growth, quality of people etc.

Respondents

The questionnaire had to be filled by the person heading the HR function in the company, most often a Director (HR) or a President (HR) or a Vice President (HR).

Overall Response Rate

The above procedure generated responses from 82 firms, out of a sample size of 359 firms and thus, overall response rate was 22.84 percent. The survey was administered using the total design method (Dillman, 1978). The response rate compares favorably with the earlier studies undertaken in this field (Schuster, 1986; Delaney et al., 1989; Guest & Peccei, 1994; Youndt, Snell, Dean & Lepak, 1996; and Harel & Tzafrir, 1999).

Measurement and Sources of Data

The study used multiple sources to collect data on strategic HR orientation and firm performance.

Strategic HR Orientation. The data on strategic HR orientation was collected by using survey technique. Based on BT database, Senior HR executive (Director or President) was contacted in 1998. The survey was administered using the total design method, which involves, pretests, pilot tests, pre-notification letters, first round mail, first follow –up letters, second round mail, and second follow-up letters.

As defined previously, strategic HR orientation was conceptualized as the alignment of HR planning, selection, evaluating, compensating, developing, and staffing practices with the business strategies of the firm. Therefore, the six variables used to measure strategic HR orientation included manpower planning, recruitment and selection, evaluation, compensation, training and staffing. Each of these variables had 3 items and there were total of 18 items in the questionnaire. The respondents were asked to evaluate a firm's strategic HR orientation on these items (on a six- point scale). The respondents were asked (sample questionnaire items):

To what an extent the firm is characterized by:

1. existence of a formal written HR plan based on strategic needs of the firm.
2. involvement of the HR person/ head in the strategic business planning process.
3. existence of business strategy linked recruitment and selection system.

The results of the Cronbach's alpha and interclass correlation indicated that the scale had achieved acceptable levels of inter-item and inter-rater reliability (James, 1982; Glick, 1985; Judd, Smith and Kidder, 1991). As the convergence level was very high, the items were averaged to compute individual respondent ratings, and then means were computed to measure strategic HR orientation for each firm, and finally the means were averaged out to compute the *Strategic HR Orientation Index (SHROI).*

Corporate Performance. The sources of data for the firm performance measures were firm's *Annual Reports, BUSINESS TODAY (BT) 500 database, and Center for Monitoring Indian Economy (CMIE) database.*

Control variables

In order to control the influence of external factors, dummy variables for size, age, research and development (R & D) expenditure, and unionization were used. The selection of these control variables was made after HRM literature review (Freeman and Medoff, 1984; Lewis, 1986; and, Huselid, 1995). The control variable for age was in the form of number of years the firm has been operating in India. Another control variable used was the size of the firm, in the form of natural logarithm of the number of the employees working in the firm. The level of firm performance may be affected by the intensity of research efforts that characterize each industry (see Dess, Ireland,

and Hitt,1990). This industry characteristic was measured by averaging the ratio of R&D expenses and sales of the sampled firms in each of the industries. Finally, unionization or union density was another control variable used in the study.

Results

Table 1 provides the descriptive statistical information (e.g. means, standard deviations and correlations) for all measures. Table 2 shows the results for multiple regression analysis of the relationship between strategic HR orientation and firm performance.

Table 1. *Descriptive Statistics and Correlations*

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8
	Dependent Variable										
1.	Return on Assets	4.37	21.14	--							
2.	Sales Growth	35.57	49.78	0.29***	---						
3.	Price Cost Margin	30.92	51.54	0.16	0.33***						
	Independent Variable										
4.	Size	1412	21950	0.13	0.04	---					
5.	Age	18.50	12.43	0.07	-0.23**	-0.16*	0.07	---			
6.	Unionization	12.37	23.34	-0.11	-0.13	-0.06	-0.09	0.11	---		
7.	R&D Expenditure	0.04	0.03	-0.20**	0.03	-0.17*	0.12	0.18*	-0.14	---	
8.	Strategic HR Orientation Index	3.73	1.55	0.27*	0.14	0.20**	0.24**	0.21**	-0.22**	0.04	1.00

Note: Two tailed test. *p< 0.05; **p< 0.01; ***p<0.00

The data in Table 2 indicates that beta coefficients of several factors in the regression equation are statistically significant. For example, age (p< .001) and unionization (p<. 01) have a significant relationship with sales growth. Similarly, R & D expenditure has a strong relationship with return on assets and price cost margin (p< .01). The findings also indicate that after controlling for firm variations and industry effects, strategic HR orientation index is strongly related to return on assets and also with other measures of firm performance.

Table 2. *Multiple Regression Analysis of the Relationship between Strategic HR Orientation and Firm Performance.*

	Independent Variables	Dependent Variables		
		Return on Assets	Sales Growth	Price Cost Margin
1.	Size	-0.09	0.17	0.07
		(-0.13)	(0.09)	(0.12)
2.	Age	-0.04	-2.01	-0.81
		(-0.31)	(-4.52**)	(-1.83*)
3.	Unionization	-0.02	-1.94	-0.87
		(-0.29)	(-4.01**)	(-1.81*)
4.	R&D Expenditure	-144.02	-143.37	-198.34
		(-2.53**)	(-1.03)	(-2.79**)
5.	Strategic HR Orientation Index	3.87	9.74	4.24
		(2.01*)	(2.13**)	(2.14*)
	Intercept	-0.02	51.47	-0.04
		(-0.002)	(1.99*)	(2.24*)
	Adjusted R^2	0.23	0.27	0.03
	F Ratio	4.95***	5.29***	1.41
	N	*72*	*72*	*72*

Note: T values in parentheses. One tailed tests. *p<0.05; **p<0.01; ***p<0.001

Therefore, the results of this study strongly support the research question as there are significant financial returns accruing to the firms that used strategy linked human resource planning, selection, performance evaluation, compensation, training and staffing practices. Thus, through the use of strategy based HR policies and practices, firms create a more competent and committed workforce, which in turn provides a source of sustainable competitive advantage. Overall, the results also show that strategic importance of HRD in the sense that it helps to sustain the level of competence that is created by firm's HR practices

Discussion and Conclusion

The purpose of this manuscript was to investigate the relationship between the strategic HR orientation and firm performance in the Indian context. Strategic HR orientation was defined as the alignment of HR planning, selection, performance evaluation, compensation, development, staffing practices with the business strategies of the firm. The research question premised in the study was that strategic HR oriented firms would perform better by making use of a low-cost sustainable competitive advantage. The data on strategic HR orientation was obtained from Indian firms belonging to nineteen manufacturing and service industries. The findings have shown that the firms with emphasis on strategic HR orientation performed significantly better than the firms with lower emphasis. This indicates that financial payoffs will be higher if firms strategically aligned and invested in their human resources.

However, the findings should be interpreted carefully, as there are number of limitations which also represent opportunities for future research. One such limitation is the 'static' nature of the study, that is, the study is based on one- time view of the certain aspects of the firm rather than collection of data at different periods of time. Thus, the future research should be based on data collected at different periods of time to determine more precisely the relationship between strategic HR orientation and firm performance. Second, the data related to strategic HR orientation was collected from a single source and therefore, rater bias might have set in. The future studies could use multi-rater method, particularly c lecting data from heads of other functions. Third, the generalization of the findings should be limited to domest.. rms of India. The future studies can solve this problem by covering more than one nation or including firms of t national nature. Fourth, another note of caution to be kept in mind while interpreting the results is that it could be t firms with higher performance simply have more resources to devote to their HR practices. Finally, the role of o er contingency variables such as organizational culture, climate, political considerations (Ferris et al., 1998) and business strategy (Richard and Johnson, 1999), as a mediator or moderator of relationship between strategic HR orientation and firm performance needs to be explored.

Despite the above limitations of the present study, there are certain implications for practitioners. First, the role of HRD is generally seen in ensuring that the firms are able to attract, retain, motivate, and develop the human resources as per the current and future requirements. However, the findings of present study point out that HRD can also help to develop and sustain the competitive advantage. Second, the results show that the firms can reap higher financial payoffs by strategically aligning their HRD policies and practices. This implies that head of HR function should be included at strategic decision making level by top management of the firm like heads of other functions. This strategic restructuring could then allow the HR director to help in selecting strategic alternatives so that HR strategies could be formulated to support organizational strategic choices (Hall, 1984).

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Human Resource Development Issues Emerging from an E-Business Corporate Entrepreneurship Team

Jeffrey S. Lewis
The Metropolitan State College of Denver

Gary D. Geroy
Colorado State University

The business environment is now enhanced by digital technology. A key to success in the digital economy is the appropriate development of human resources. Because of the sweeping changes being initiated by technology, some behaviors may not be suitable for the digital domain. This study implements qualitative methodology to examine an e-business corporate entrepreneurship team within a traditional business. The notion that digital economy factors do impact corporate entrepreneurship teams within traditional businesses is supported by this study.

Keywords: E-Business, Corporate Entrepreneurship, Teams

We now have a business environment enhanced by digital technology and are rapidly approaching an era that will require most companies be built upon a foundation of digital technology. One of the keys to success in the digital economy is the appropriate management and development of human resources. Because of the sweeping changes being initiated by technology, old management behaviors may not be suitable for the new digital domain. Traditional businesses will need to evolve and transition into the realm of electronic business.

At the turn of the 21st century, businesses should be highly concerned with the following two questions posed by Kalakota and Robinson (1999). First, how will existing, traditional companies make the transition into digital economy companies? Second, what are the impact of digital economy factors on the form and function of 21st century companies? The research objective of this study is to contribute academic research focusing on these questions. This study will focus on emerging human resource development practices that enable companies to transition into the digital domain. Of primary importance is an examination of the team processes involved as a traditional business initiates a new electronic business creation team and that team progresses from the development of an idea to the operation of a revenue-generating electronic business.

Theoretical Framework: The Digital Economy

Technology has transformed business and initiated the creation of a new digital economy. As a result, the new economy's innovators have developed new business models, strategy, and processes. These new ways of conducting business have affected businesses on a global scale and initiated a renaissance that will certainly be distinctive to future business historians. Tapscott (1996) states, "Today we are witnessing the early, turbulent days of a revolution as significant as any other in human history" (p. x).

As a result of the proliferation and usage of new technology, a new economy has been birthed. The new domain of electronic business is more than a mere trend or paradigm shift; a new reality has emerged in business. New economies have emerged in the past as the agricultural economy was displaced by the industrial economy, which was displaced by the service economy, which was displaced by the global economy, which is currently being displaced by the digital economy (Aldrich, 1999, p. 6). As each new business reality has emerged, businesses have been required to rediscover how to exist by balancing the new and the old.

The digital economy is creating a tremendous challenge and problem for companies that pre-date its emergence. Machiavelli eloquently identified the problem facing companies with his quote, "There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things" (Bergin, 1947, p. 15). Companies need to understand that digital technology has fundamentally changed the way business will be conducted in the 21st century. Those who choose to discount the pervasiveness of the changes or feign away because of intimidation will quickly be replaced by the techno-savvy. A new set of rules is being written in the digital economy, and all businesses must change their game plan if they are to stay in the game.

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The transformative power of the Internet continues to astonish all who encounter it (Bollier, 1998). No business leader can presume that the business realities of the last decade will still be valid a few years from now (Evans & Wurster, 2000). Electronic commerce will change not only the way firms do business but will also transform organizations (Choi, Stahl, & Whinston, 1997). The Internet's impact is profound enough to identify it as a *disruptive technology* (Kalakota, Oliva, & Donath, 1999). To realize the full potential of electronic commerce, businesses must be willing to change the way they operate. History has shown that significant advances occur when technological change is combined with organizational restructuring. Not only is business conducted more efficiently, but also new business opportunities are created. Management must play a large role in the formulation and implementation of electronic business strategies (Kalakota & Whinston, 1996). Human resources must be managed and deployed differently in the digital economy.

E-Business Impact on the Human Resource Dimension

Electronic business goes far beyond simply "doing business electronically." Doing business electronically means that many conventional business processes, such as advertising and product ordering, are being digitized and conducted on the Internet. However, the Internet is not a mere alternative channel for marketing or selling products online (Choi et al. 1997, p. xxiv). Aldrich (1999) presented two critical questions that business leaders are now required to answer: (1) "How will the digital economy change my relationships with workers, vendors and customers? (2) "What will be the impact of the digital economy on my company's culture and organizational structure?" (p. 21)

Businesses must still focus on competitive advantage and its sustainability as the key drivers of success, but the means to these ends are drastically changing (Evans & Wurster, 2000). Business leaders must look past making the electronics and software work and focus on how to create business value with these technologies (Martin, 1996). Many would argue that the greatest challenge for corporations and established large-scale organizations is the requirement to embrace the unknown and tolerate the ambiguity associated with the rapidly developing digital economy (Evans & Wurster). The new dectronic marketplace will necessitate new innovative models of firm organization, production, delivery, and overall market institutions (Choi et al. 1997).

All businesses are being forced to interact with the new realities of electronic commerce, and there is a belief that the changes are initiating a time of natural selection in business in which only the fittest will survive (Martin, 1996). The transforming power of the digital economy is rapidly changing the rules of the industrial economy, company by company and industry by industry (Kelly, 1998).

A unique set of challenges is facing companies seeking to become players in the digital economy. Many have advanced with technology, but the gulf between their current reality and the new rules of the digital economy requires evolution rather than adaptation or reengineering. The large brick-and-mortar companies are rethinking their business models to compete in the new marketplace (Korper & Ellis, 2000). The new technologies are changing the most basic rules of management, work practices, and values (Bollier, 1998).

Businesses must not only respond to the new forces within the new economy but also closely examine internal fundamental processes. It has been shown that the post-modern society has influenced the development of team-based operations to accomplish organizational objectives. More recently, the emergence of technology-mediated communication and virtual team operations have changed the day-to-day business interactions. Businesses must move faster and smarter and be willing to accept increased risk to survive within the electronic business environment.

Research Premise

The challenge for this exploratory study is to identify the forces influencing the processes and behaviors of electronic business venture creation teams that are operating within traditional brick-and-mortar businesses. The realities of the new economy are forcing existing businesses to evolve. This study strives to describe the evolutionary processes of businesses seeking to bridge the chasm from the traditional economy to the digital economy.

Researchers and scholars are confident in describing what characteristics and processes support new venture creation teams. Not present in the literature were specific descriptions of ventures successfully transitioning from within a traditional business to the digital economy. In an attempt to address the void, this study compiles data from within a traditional business endeavoring to launch a new electronic business. The case organization has a widely regarded reputation for being innovative and setting best practice benchmarks within its pre-digital economy industry.

This study has been a challenging endeavor for the researchers. The new digital economy is young, with most agreeing it emerged in the early 1990s. Since that time, the factors associated with electronic business have been

fast moving and fluid in nature. The economy is quickly evolving and forcing businesses to evolve also. An additional challenge is associated with a lack of academic, empirical research related to the issues associated with this study (Penbera, 2000). Empirical models that predict the behavior of firms engaged in electronic business need to be developed (Barney & Ouchi, 1986). Most of the attention in academic research has been given to marketing and information technology aspects of electronic business.

Human Resource Development Contribution

This study will contribute to the field of human resource development by investigating whether there is a difference between brick-and-mortar venture creation teams and electronic business venture creation teams. This will be accomplished by describing the processes that occur as brick-and-mortar businesses deploy teams to develop electronic business functionality. This study will also begin to balance the focus on electronic business by addressing human resource development realities. The predominance of research and attention within electronic business has been focused marketing and computer information systems. This study provides businesses with definition and structure for enacting electronic business venture creation teams from a human resource development perspective. This study also provides specialized insight for evolving corporations. An examination of corporations that originated before the advent of the new digital economy was the focus of this study. The issues surrounding the establishment of electronic business functionality within a corporation without an original electronic business mission are unique.

Research Question

The research question addressed in this study is, "What are the significant factors supporting a successful transition of a new venture creation team emerging from a traditional domain to a new business organization working in the digital economy domain?" To address this research question, several enabling questions were asked. The enabling questions included, but were not limited to, the following five questions: (1) What does the establishment of an electronic business creation team from within a traditional business look like? (2) What are the new rules of electronic business, and how do electronic business venture creation teams address them? (3) How do electronic business venture creation teams balance their organization's resources, culture, and competencies with the new rules of the digital economy? (4) What human resource development processes occur within electronic business venture creation teams? (5) What is the impact of the digital economy on the team's culture and organizational structure?

This study was process orientated, not outcome orientated, and its goal was to describe what is occurring and avoid an attempt to measure the effectiveness or efficiency of the efforts. The definition and descriptions resulting from this study should enable researchers to form quantitative hypotheses and perform additional empirical research.

The intent of this qualitative phenomenological study (Creswell, 1998) is to identify the issues that emerge when a traditional organization interacts with the significant factors emerging from the digital economy. As stated earlier, existing companies are facing challenges resulting from an economy heavily influenced by digital technology, and more specifically, the Internet. Many believe that the digital economy has and will cause traditional organizations to modify their human resource development practices. Managers are forced to manage differently, and business leaders are forced to lead differently. This study makes the assumption that teams are also evolving and developing a unique set of values, norms, and practices as they interact with forces within the digital economy.

Research Methodology

The key context for the study involves a specific examination of a team within an organization that did not originate within the digital economy. The outcome of this study is a rich, thick description of team processes and experiences. Insights into how modern organizations react and comply with the new factors associated with the digital economy would be a significant contribution to the field of human resource development.

The objective of this research is to interview participants of a team consisting of engineers, administrators, and analysts engaged in an electronic business venture creation initiative. For this study, the researchers identified a high technology company with a strong commitment to innovation and a new charter to develop a strong electronic business focus. The venture initiative began as a small team and has grown into an operational business within the larger corporation. The team selected for this study was birthed from a traditional organization and given a charter to investigate the Internet economy and seek to leverage organizational competencies through the development of a transaction-based revenue model conducted using the Internet.

The research plan employed qualitative phenomenological study of the identified team. Due to the limited amount of literature related to teams and the new digital economy, the qualitative approach was chosen for an initial exploration and understanding of the team processes related to the research questions. The primary data generation strategy was structured interviews (Creswell, 1998) with the team's managers and other associated parties within the organization.

The participants for the study were members of the electronic business venture creation team at a Fortune 50 high-tech corporation. Individuals with management responsibilities and those responsible for the team's supervision participated. Eleven individuals were invited to participate in the interviews. Demographic information related to the participants was included in the analysis portion of this study. The participants were employees of a large, high-tech, multinational corporation. There is some cultural diversity among the participants, but most are U.S. natives. There is some gender diversity among the participants. The researchers estimated all participants were between 35 and 60 years old.

Interview Process. Interviews were conducted with key members of the organization who were directly involved with the subject team. Eight of the interviewees were members of the team, and three were significantly involved with the team from an upper level of the organization for a total of eleven interviewees. Three rounds of interviews were conducted with the eight team members, which resulted in twenty-four interview sessions. Three interview sessions were conducted with the three interviewees from the upper levels of the organization. All interviews were conducted individually between a researcher and the interviewee. One researcher interviewed all of the interviewees. The researcher scheduled hour-long appointments with the subjects in accordance with the subject's schedule. All interviews were scheduled during the workweek and during normal business hours. In all interview situations, the interviews were conducted in a comfortable and private setting. The researcher tape-recorded each of the interviews using two small tape recorders. All participants consented to having the interview tape-recorded. The time involved with most of the interviews was approximately 50 minutes. The total time spent in one-to-one interviews with the interviewees was approximately 30 hours.

Interview questions were developed before each round of interviews were conducted. The interviewee was given a summary of possible questions prior to the interviews. These questions were used as a guide to initiate the discussion. As the interviews progressed, an open discussion evolved with the interviewees. The researcher conducted the interviews with a primary goal of drawing out the voice of the team and was careful to avoid questions that were not open-ended or would be prescriptive.

At the conclusion of a week of interviews, the audiotapes containing the individual interviews were delivered to a professional transcriptionist. The interviews were transcribed within five days and returned to the researchers in electronic format. The transcripts of the interviews were delivered to the associated interviewee for member checking purposes. Each interviewee was asked to review the transcripts and to change, modify, or omit any statement on the transcript. Any changes, modifications, or omissions were communicated to the researchers by the interviewee before the interview was analyzed. The interviewees understood that their transcripts would be analyzed and used in the study after they had the opportunity to revise and modify their transcripts.

After the transcripts were returned from the interviewees, the researchers verified the accuracy of the transcripts. The accuracy was checked by listening to the interview audiotape and following the text of the transcript. Some words were changed in the transcripts by the researcher. This was necessary because some of the interviewees had an accent. The interviews also focused on technical issues and specific companies that were difficult for the transcriber to understand. The researchers also changed the names of the team members and companies in the transcripts to pseudonyms.

Research Design Verification. Qualitative researchers have established exploring procedures to verify the quality of the data gathered for analysis (Creswell, 1998). The researchers conducting this study choose three procedures, member checks, debriefing, and source triangulation, to contribute to the reliability and credibility of the data.

Data Analysis

Qualitative software tools facilitate the coding process of the transcripts. The transcripts are loaded into the software as data sources in text files. Then, the researchers generated a list of codes that are assigned to specific words, phrases, or sections of text in the transcripts. The codes and their associated texts are easily reviewed, consolidated, analyzed, and printed throughout the course of the data analysis. HyperRESEARCH allowed the researchers to code all data numerous times, retrieve and manipulate portions of coded source material, test

propositions about the data on any one code or combination of codes using Boolean searches, test hypotheses about the overall meaning of the data using artificial intelligence, and print the retrieved data. Many scholars (Coffey & Atkinson, 1996; Glaser, 1978; Miles & Huberman, 1994; Seidel et al. 1995; Tesch, 1990) have proposed that coding is analysis and forms the basis of description from which interpretation is made.

The researchers incorporated a coding process involving three coding levels. Open codes were the initial codes given as the transcripts were examined. These codes were the most numerous as many words and phrases were identified as relevant to the study. The open coding process occurred soon after the transcripts were returned to the researchers by the interviewees. Additional interview questions were generated as a result of the open coding process.

Axial coding was used after all of the transcripts for a particular interviewee were open coded by the researchers. This level of analysis involved a grouping activity of open codes. Axial codes are groups of related open codes that begin the process of identifying emerging themes and issues from the transcripts. The 15 axial codes identified are illustrated in Figure 1.

Third, systematic codes were given to axial codes after all of the transcripts had been open and axial coded. Systematic codes are grouped between subjects and help to identify the voice of the team and the consistent or inconsistent messages communicated by the participants. Three systematic codes were identified: corporate entrepreneurship issues, team processes issues, and digital economy issues.

Figure 1. Systematic and Axial Codes

Systematic Codes		
Corporate Entrepreneurship Issues	Team Processes Issues	E-Business Issues
Axial Codes		
•Executive sponsorship •Participant experience •Risk, uncertainty, and ambiguity •Organizational resources leveraged for the venture •Organizational response to the venture	•Team values •Team beliefs •Team communication •Team operational principles	•Webspeed •High level of collaboration with external organizations •Rapidly advance up the learning curve •Staff with unique human resources •Address the issue of external e-culture •Higher level of autonomy and protection from organizational immune system

From the analysis of the team member interviews, a number of issues have emerged regarding how a new venture creation team seeks to develop electronic business activities from the foundation of a traditional organization. The researchers encountered a team that experienced a multitude of challenges, successes, and frustrations resulting from corporate entrepreneurship phenomena, team processes phenomena, and digital economy phenomena. This study focused on the factors associated with the digital economy phenomena. The corporate entrepreneurship phenomena and team processes phenomena were present in the voice of the team, and issues resident within the digital economy affected these phenomena.

The following discussions present the researchers' answer to the research question based on the researchers' synthesis of analyzed data from the interviews. Because of the qualitative nature of this study, the researchers has the responsibility of immersing themselves in the data and then reporting the findings based on qualified analysis and synthesis activity.

Findings and Discussion

Team Establishment Characteristics

The first enabling question proposed in the study was, "What does the establishment of an electronic business creation team from within a traditional business look like?" The voice of the team provided clear descriptions of team establishment including the uniquenesses involved with a corporate entrepreneurship effort. The researchers found that team establishment is a fast-paced, exciting event. The participants appeared to be very satisfied with the experience despite the stress and risk involved with the endeavor. Launching an electronic business from within a traditional organization involves the challenge of balancing multiple stakeholders' interests. The team in this study spent considerable effort interacting with executive sponsors and accommodating organizational processes.

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Addressing the Uniqueness of the Digital Economy and E-Business

The second enabling question asked, "What are the new rules of electronic business, and how do electronic business venture creation teams address them?" In this case, the subject team encountered three primary new rules. The first rule was the requirement to operate at Webspeed verses a traditional business speed. This rule is accommodated through staffing with the right people and committing the appropriate resources to enable a high level of speed and effort into the venture.

The second rule is related to the culture of collaboration within the digital economy. Identifying the significant players through a thorough investigation of the business landscape accommodates this rule. Once the players are identified, the team must begin a process of relationship building with the external constituents. Staffing with team members who have the ability to communicate well and interact successfully with external constituents is an important aspect of collaboration. Collaboration was found to be one of the axial codes within the realm of digital economy issues.

The third rule is related to the external e-culture encountered as the team members venture into the digital economy space. The team must be aware that business culture is different within the digital economy as compared to most traditional organizations. The organization must also be aware that the interaction may elicit a response from the team members as they consider their own experience in relation to the e-culture experience.

Balancing Bricks and Mortar in the Digital Economy

The third enabling question was, "How do electronic business venture creation teams balance their organization's resources, culture, and competencies with the new rules of the digital economy?" The researchers found the team leader played a critical role in balancing the team's experience with the organizational resources, culture, and competencies. The team members demonstrated somewhat of a love-hate relationship with their organization. Although the organization possessed a valuable reputation and allowed the team access to tap a wealth of financial and human resources, the team struggled with many aspects of the organization's culture and processes. The team leader sought to shelter the team from the hindering aspects and take advantage of the positive aspects.

The team advocated creating a new place within the organizational chart that would allow the team to operate outside the company's direct control but still allow access to leverageable assets. This area would provide a protection from bureaucracy and an immune system yet facilitate enough interfaces to leverage assets and competencies. These issues were identified within the axial code discussion of digital economy issues, team process issues and corporate entrepreneurship issues.

Human Resource Development Processes

The fourth question asked, "What human resource development processes occur within electronic business venture creation teams?" The researchers found seven prominent processes directly related to electronic business issues.

Selection of Appropriately Skilled Team Members. The first was related to the selection of appropriate individuals with the right competencies and characteristics. Team members should be screened for entrepreneurial characteristics, high performance characteristics, technology affinity, and solid communication and collaboration characteristics.

Employee Migration. The second process was related to employee migration. The team garnered a high level of attention within the organization, and many employees sought to migrate to the team. The organization should note that many employees are looking for like opportunities, and offering those opportunities could contribute to employee retention.

Reward Systems. Third, this study illuminated the need for a reward system that focuses on the increased risk of the employee and high performance required for success. The team reported on the need for new and improved reward systems that would compensate adequately for the risk they had taken and the innovation contribution they were making to the larger organization.

Learning Processes. The fourth process involves team learning. Managers and facilitators should be aware of the high need for learning and effective and efficient processes for documenting, processing, and incorporating the

learnings. Learning process involved effective and efficient activities to account for the newness and dynamism of the digital economy issues. The team developed means and methods to gather, process, analyze, and disseminate learnings within the team and the team's larger organizational scope.

Communication Processes. Fifth, the team must have efficient and effective communication processes in place to facilitate a successful endeavor. The subject team used combinations of face-to-face meetings and computer mediated communication tools to facilitate their communication processes.

Operational Principles. The sixth process is identified as the incorporation of appropriate operational principles. The subject team established operational principles that served them well and facilitated successful operations. The principles enabled the team to make advances in uncertain conditions because of the team's shared commitment.

Impact of Digital Economy on Team Culture and Organizational Structure

The fifth enabling question was, "What is the impact of the digital economy on the team's culture and organizational structure?" The digital economy influenced the team to move faster, incorporate a higher level of interpersonal trust and relationship, use a more open style of communication, and incorporate a higher level of team member empowerment. The themes and issues that emerged from the interviews promote the notion of a new business culture.

Factors Supporting an Intrapreneurial Team

The primary research question for this study asked, "What are the significant factors supporting the successful transition of a new venture creation team emerging from a traditional domain to a new business organization working in the digital economy domain?" New venture creation teams are supported to transition from a traditional to a new business venture working within the digital economy when the team: (1) Is empowered to move fast. (2) Is built with high performance members. (3) Possesses a clear understanding of how organizational assets can be leveraged. (4) Is empowered to leverage organizational assets. (5) Is sheltered from detrimental organizational processes. (6) Establishes appropriate operational principles. (7) Endeavors to learn the rules of the digital economy and identify the major players in the related industry. (8) Strives to collaborate with appropriate players external to the organization.

Limitations of the Study

Teams are complex entities because they consist of unique people. Embedded within this study are unique phenomena related to the specific people and circumstances surrounding the subject team. As a result, this study faces many limitations in relation to generalizing its findings to other teams or organizations. This study was an investigational study with one team. The purpose was to identify issues related to young and slightly researched phenomena. The identified issues are evolving fast, in relation to the rapidly advancing technology. It is possible that the issues identified in this study will be unimportant within a short period of time because of the rapid changes occurring within the digital economy. However, as a baseline from which to build theoretical and practitioner process models, this study is valuable.

Recommendations for Human Resource Development

Human resources must be managed and deployed differently in the digital economy. Scholars and practitioners within the realm of human resource development should note the issues identified in this study. The researchers believe human resource development professionals can play a significant role in assisting traditional businesses in establishing ventures in the digital economy.

First, traditional businesses need assessment tools such as surveys and interview questions that can assist in the selection of appropriate employees for electronic business venture creation teams. Second, individuals, ranging from members of the Board of Directors to members of the electronic business venture creation team, could benefit from training that focuses on the new rules of the digital economy and strategies for success related to the digital economy phenomena.

Third, human resource development professionals should investigate the development of new reward systems and career paths congruent with the new e-culture of the digital economy. Traditional organizations are operating

under reward systems that may have served them well for many years but are a liability in the digital economy. It is crucial that traditional organizations retain their human resources, and reward systems are directly related to that effort.

Suggestions for Further Research

The purpose of this exploratory qualitative study was to examine and describe organizational phenomena that may have significant implications for human resource development scholars and practitioners. During the course of the study, several hypotheses surfaced related to the effectiveness of electronic business venture creation teams. Two primary areas of new hypotheses emerged, one related to team performance and the other related to individual outcomes. The following hypotheses are suggested for additional study:

Team Performance Hypotheses. (1) Electronic business creation teams from traditional organizations exhibit higher performance when they have a solid understanding of the rules of the digital economy. (2) Electronic business creation teams from traditional organizations exhibit higher performance when they have are staffed with appropriate team members with a unique set of competencies. (3) Electronic business creation teams from traditional organizations exhibit higher performance when they have an empowered team leader who is able to leverage organizational competencies and assets.

Individual Outcomes Hypotheses. (1) Members of electronic business creation teams from traditional organizations exhibit higher work satisfaction because of the exciting work environment. (2) Members of electronic business creation teams from traditional organizations exhibit higher levels of stress than other employees from the same organization. (3) Members of electronic business creation teams from traditional organizations exhibit higher work performance than other employees from the same organization. (4) Members of electronic business creation teams from traditional organizations are more likely to leave the organization to participate in a start-up venture within the digital economy than other employees from the same organization. (5) Members of electronic business creation teams from traditional organizations are more likely than other organization members to stay with the organization if their compensation is based on the success of their venture.

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Transforming Human Resources into a Strategic Player on Campus- From Theory to Practice: A Case Study

Val M. Berry, SPHR

This article presents an overview of how human resource units in higher education may be transformed into strategic partners, utilizing organizational change approaches. Utilizing a case study approach, managerial impact on leadership, communication, process re-engineering, and performance metrics are examined. A framework for transformation is presented and it is suggested that the change process can be reduced to a "how to" approach that can be replicated in other environments.

Keywords: Organizational Change, Strategic Management, Organization Development

Experience and practice suggest that utilizing organizational development and change approaches can transform human resource organizations from transactional actors to strategic players in organizational management. The purpose of this article is to present a case study overview of strategic organizational change that includes practical applications. Integrated in the presentation is a transformational process that can be reduced to "boiler –plate" steps that support theoretical frameworks regarding organizational development and strategic management and can be replicated in any higher education organization.

Introduction

A major southern university opened its doors in 1972 on the site of an abandoned airport. On opening day, the university enrolled 5,667 students the largest first day class in American collegiate history. This southern university, the only public research university in the region, is one of the most dynamic institutions in the country and has achieved many benchmarks of excellence that have taken other institutions over a century to attain. The pace of change in this environment is dynamic and almost electric. The employee population doubled between 1990 and 1995 and doubled again between 1995 and 2000. In 2000 the university attained Carnegie Research Extensive status and began a law school. Currently the university employs over 6,500 employees. With 15 different academic programs, each having significantly different missions, human resource administration has unique, complex and rewarding challenges.

In the beginning of 1995, I was hired as a journeyman human resource professional by a poorly regarded, but well intentioned, chief human resource officer, as her operations director, in a last ditch attempt to improve overall unit performance. Regrettably, her efforts were "too little, too late" and she was "retired" within six months of my arrival. Although I assumed the position of Interim Director, I was given no assurance of promotion. In fact, to the contrary my Senior Vice President, a hard charging, innovative, "water walker" (but not well versed in human resource matters) made it clear I would need to apply for the position and demonstrate my worth. No other instruction, vision, direction or even expectation was
communicated. The assumption was I would hold down the fort until help arrived.

While a national search was begun, I took stock of my circumstance and began a campaign for the position. The Office of Human Resources (OHR) was heavily transactional, steeped in what can best be described as top-down control, with little delegation and a great deal of micro-management amidst strict application of policies, procedures, rules and federal regulation. Organizationally the unit was viewed as lacking value, "pigeonholed" as administrative paper pushers. Lack of trust or confidence in the unit's skill set required most major and many minor projects to be done through cross campus committees. The staff was almost completely home grown and as a consequence their breadth of experience was highly limited. There were many lingering and persistent employee relations problems that created a managerial belief that state workers could not be released, even for misconduct. The Office of Human Resources had experienced several highly visible failures. While there were some successes, they were only celebrated among internal staff.This article provides a case study demonstrating in "how to" terms the process human resource organizations, even those in dire straits, can transform themselves into organizational strategic partners.

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Approach

The great difference between high performing organizations and those that tend to stick to the set "norm" is not often easy to discern. What is, however, obvious is that good organizations are those that do not start with a wish list, but tend to drive with real purpose, good planning and a serious effort to engage the whole organization (Zairi 1998). From a practitioner's perspective, organizational engagement occurs on multiple fronts almost simultaneously. It is necessary to engage key direct reports, other staff members and other constituents. Generally, it is recommended that would-be change agents engage their own management first, but in my instance, having if nothing else, tacit support from my management rendered this necessity moot. I first met with my chief deputy to assess her skills and attitude. Frankly, I was prepared to consider her release to demonstrate my willingness to change the organization. Many organizations "clean house" and release members of the management team in an effort to introduce new initiatives. This approach is not always useful. While it is a quick fix, it can be demoralizing to the "surviving" staff, and presumes that economic resources can be poured into the change process (in our instance, as a public sector organization, we ra rely pay market wages therefore replacing existing staff is not a dollar for dollar proposition). I favor creating partnerships with existing staff by finding common ground and the development of a shared vision. Shared vision can create a groundswell of support for change and camaraderie amongst staff (Stuart, 1995). The shared philosophy developed between us was key to the creation of a mission and vision that was subsequently shared and embraced by all staff. After meeting with my chief deputy, I met with each member of the staff individually. Each meeting lasted approximately one hour. The duration of the meetings was important. Staff will test your commitment and resolve. Short meetings will be perceived as superficial and disingenuous. Take notes, be candid and keep whatever promises you make. While the dialogue was open-ended, the agenda was written and included a review of our mission from the perspective of leadership, the employees' role, and a broad overview of departmental direction. Because of power dynamics, I did not meet in my office. We met in the employee's workspace when it was a private office or we met off campus. I listened and responded to their concerns regarding working conditions, recognition, and terms and conditions of employment. It is important that staff know management's views, is allowed to express their views, and can make informed decisions about their future with the new organization. We discussed our expectations of one another. Above all else, staff was made aware that everything that each one of them does, every day, makes a difference. For example, a phone left ringing could become an irate customer complaint that will reflect upon the rest of the organization, and/or color the service perception as experienced by the customer. We also introduced ground rules for working with one another. We call our ground rules by an acronymic metaphor known as the ROPES (Respect, Openness, Participation, Education and Sensitivity). It is expected that in our dealings with one another we always adhere to the ROPES. The ROPES are our common-bond. As an anecdotal outcome of our meetings our receptionist was dubbed the Director, First Impression, a title that most clearly defines her role and its impact on our organization. These meetings were part of an overall communications strategy. A communications strategy should coincide with the general stages of a planned change and the relevant associated information requirements (Klein, 1996). Staff attended to and retained information that was directly associated with their jobs. Also, like all organizations, informal leaders of the department felt empowered by being sincerely asked for their opinion. Eventually, it became obvious our staff group was composed of skilled professionals who for the most part were selfless and with few exceptions, without alternative agendas. Their only problem was a lack of leadership and shared vision.

I also met with key constituents, the president, the vice presidents, college deans, and department directors, and chairs. I surveyed my constituents about their experiences and expectations of the Office of Human Resources ; shared with them our philosophy, and vision; and promised and subsequently delivered regular updates. Get in front of your customer and ask the question "How am I doing?" In my experience, rarely are they unwilling to tell you the bad news face to face. Discussions with staff and key constituents demonstrate leadership. Leadership necessary to building sustainable HR capability means the practice of directing, goal setting, planning, reviewing, and devoting a high proportion of time to communicating, motivating, engaging, delegating and empowering people to perform. Good leadership is often associated with recognizing and rewarding good performance. h a modern business context, it is also important to "synergize" people through creating a clear emphasis on teamwork and the establishment of values (Zairi, 1998).

The Strategic Organizational Change Process

Organizational development (OD) is a distinct area within the field of organizational science that focuses on the planned and controlled change of organizations in desired directions (Gilley, 1994). Change is likely incremental

rather than monumental, and should be carefully considered. Our first transformation action step was to conduct a business process re-engineering (BPR) of existing procedures through process mapping. There were 89 different administrative work processes in our department. After processes were mapped, they were benchmarked against other organizations, and re-engineered for improved efficiency. While we did this ourselves, it can be useful to employ a consultant for this function, which will facilitate benchmarking. Consultants are adept at providing critical feedback about how to do work more efficiently. One positive outcome of process mapping was staff was able to visualize and accept the feedback from our constituents that we were steeped in "administrivia". BPR typically produces a flatter organization; such delayering has been common. A flatter organization means that people are given more responsibility, increased decision making capability, autonomy, and flexibility at the point where it is needed permitting managers to be closer to customers with a "first hand" perception of the business reality (Zucchi & Edwards, 1999).

The second step is to formally develop and publish mission, vision and goals for human resources. A shared vision should be created through group involvement. Strategic planning is a relatively new phenomenon on campus. As the organization did not label human resource management a strategic imperative, we were able to set many of our own priorities, however, we were always vigilant about setting priorities that were compatible with the university's organizational mission. Our vision and goals focused on continuous process improvement. If all staff can't at a moment's notice, articulate your mission and goals further refinement is necessary. Do note that changes made should have the concurrence of senior management. Mission, vision and goals should match organizational strategic objectives.

The third, and perhaps most critical action step is to improve the transactional administration of human resources. Where possible decentralize processes, put more control in the hands of line managers, devolve away from personnel administration and openly embrace organizational change. Strategic human resource management requires a holistic approach, with not only an internal integration between personnel systems (recruitment, selection, reward mechanisms, appraisal performance management and staff development) but also an integration between the varying sub-systems of human resources into one overarching human resource strategy, that is consistent with the organization's strategy overall (Baker, 1999).

Moving From the Reactive to the Proactive - Developing a Human Resource Strategic Plan

In this case study it is not possible to provide detailed instruction on how to develop a strategic plan. However, there a number of well established resources that can assist you in strategic planning. The Strategic Plan for the OHR articulates the five-year goals and initiatives of the Office to benefit (i) the sub-units of the Office (i.e., Compensation, Benefits, Employment, Training and Development etc.), by focusing their efforts, and (ii) our constituents as a whole, by ensuring coordination and integration with their missions and strategic activities. The strategic plan is based on the plans developed in each of the sub units of the OHR. A grass roots effort, each subunit has developed a five-year vision, positioning each unit as a service provider so as to appropriately support campus academic and other administrative units in the attainment of their goals and objectives.

The following overarching strategic objectives, conceived in the context of and in support of the University mission, have been established as fundamental to the overall planning process.

1. *Continued Development of the Process of Consultation and Communication with Constituents.*

   Programmatic goals are to reflect the principle of ongoing communication and consultation with campus constituents. The Office of Human Resources will continue to implement consultative models with its customers to ensure involvement in the planning, implementation, and evaluation of initiatives undertaken. On a regular basis OHR will meet, discuss and develop service enhancements, identify new areas of campus need, and review the effectiveness of current services provided.

2. *Continued Focus on Service Orientation.*

   Given the primary role of support units is to provide high-quality, cost-effective services in support of the academic mission, a heightened service orientation remains a critical element of the administrative organizational future.

3. Continued Improvement in Business Practices.

The Office of Human Resources will continue to engage in examination and improvement of business practices to ensure that core services are delivered in a cost-effective, customer focused manner.

4. Continued Decentralization of Services While Maintaining Appropriate Internal Controls.

Decentralization is critical to efficiency and line operational autonomy. To ensure consistency in policy, equity, and appropriate regulatory compliance the OHR will continue to champion the development of enhanced internal control procedures. These procedures set forth the accountabilities of responsible officers in each unit served. The internal controls structure will also identify areas of potential risk and will allow for proactive corrective action as well as training activities.

5. Focus on Staff Quality, Staff Development and Staff Morale.

OHR is committed to developing and retaining staff and managers capable of providing high quality administrative support services to the campus. Toward this end, staff and managers must be competent, appropriately rewarded and valued by the organization. OHR will invest in personnel skills development to enable its staff and managers to maximize their contributions to the University. Developing Metrics

Growth cannot be gauged without measuring organizational performance (Santos, 2000). The following metrics are recommended as a baseline for measuring the effectiveness of campus human resource services:

New Hire Quality. refers to the average manager rating of new employees, 90 and 180 days subsequent to employment. This is a simple measure of performance rating. The more employees who fail during the 90 to 180 day period of initial employment, the lower the quality of your hiring decisions. This process need not be a formal review. A simple survey where the manager rates general satisfaction of employee performance will suffice. It is not advisable that New Hire Quality be benchmarked as a gauge of success versus other organizations. However, the measurement may be used to track trends within the organization, especially where hiring is decentralized. Line managers who have a poor selection track record can be given additional coaching by an observant and responsive human resource staff.

Actual/Contracted Time-to-Fill. requires calculating the average actual time to start divided by the average contracted time to start. "Actual" is the number of days between when recruiting is initiated, and when the new employee starts. The "contracted" time is the number of days between the date recruiting is initiated, and the date the recruiter and hiring manager mutually agrees that the position will be filled by. The closer these two dates coincide the higher the satisfaction level of the primary customer, the hiring manager.

Staffing Cost Ratio. requires figuring out the total staffing costs, then dividing by the total compensation recruited. Total staffing costs are determined by adding up four cost areas:

S1: fixed-overhead recruiting expenses
S2: sourcing-advertising, recruiting fees, Internet posting expenses
S3: signing bonuses
S4: travel, relocation, visa expenses.

The sum of these four areas equals total staffing costs. Total compensation recruited is the sum of the annual base starting compensation of all external positions filled by staffing. Once you've come up with these two figures, the Staffing Cost Ratio can be calculated by using the following equation:

Staffing Cost Ratio = Total Staffing Costs/Total Compensation Recruited

This metric is not so much a measure of quality as it is a mapping of staffing activities. Knowing expenditures greatly enhances organizational planning, as it allows for the identification of costs and benefits and will provide a clearer understanding of fixed and variable costs.

Turnover: Interpreting turnover rates can vary by region. But, the formula for capturing the data is a simple one employed by the Department of Labor; Number of employee separations during the month/ Total number of employees at midmonth.Thus, an organization with 10 separations (employees who leave the organization during March 1–30), and 100 employees on March 15 (midmonth), has a monthly turnover rate of 10% (10/100 = 10%).

Avoidable Separations Turnover Rate: Total separations in the selected period - unavoidable separations/ Total number of employees at midmonth. In the previous example, if 3 of the 10 separations were unavoidable, the 7 remaining separations divided by 100 employees yields a 7% avoidable turnover rate.
It must be noted that the only way to capture avoidable separations is to consistently conduct exit interviews of separating employees. Exit interviews provide insight into what is going on in your organization and what you can do strategically to improve workplace quality.

Measuring Return on Investment for Training: Most organizations measure the reaction of training participants (how they feel about training). Many also measure the learning that has occurred. Increasingly HR professionals are asked to measure changes in on the job behavior, as well as identify business results of training. Seldom however, is HR asked to calculate return on investment (ROI). Strategic value can be added to an organization by capturing as many costs as possible incurred in training and making an attempt at creating "hard" data regarding the organizational benefits of training on the organization. Some examples might include a correlation between training dollars invested in accident prevention and Workers' Compensation claims; wellness training and health insurance claims experience; or the benefits of each hour of supervisory training correlated to improved employee attendance.

Continuous Improvement Initiatives

We have embraced the Japanese model of continuous improvement, called Kaizen. Every member of staff has to make their own contribution toward improvement regardless of their position. Development proceeds continuously in small steps. The purpose of the Kaizen process is not only to encourage and oblige the staff to think about improvements within their assignments continuously but also to realize these ideals. This means every staff member has to think everyday about what's going well and what should they do to improve. Everyone has become ready to call their work into question, integrate innovations and try new concepts. We have embraced our university president's credo "everything that everyone does, every day, makes a difference."

Human Resource Staff Development Systems

OHR introduced a mandatory staff development process for all staff. Once a year, staff members meet with their immediate supervisor to develop a customized career development program. The meeting and subsequent career development action plan is part of the overall performance evaluation process. Career development plans vary widely, however among the standardized components of our staff development approach is a requirement that each staff member must allocate a minimum of 40 hours to completion of their action plan. Action steps must be focused on improvement as a human resource professional. Typically, employees have planned and received coaching toward completion of an advanced degree, professional certification, attended conferences, conducted research or participated in professional associations. The action plans need not require large resource commitments from your organization. Directed career development coaching has been highly effective as managers have been actively involved in helping employees meet their personal and professional goals. In good budget years staff typically looks to attend more professional conferences and seminars. In tough budget years, staff has published more, or volunteered more. Nearly everyone on staff is seeking a advanced degree of some sort as tuition remission is one of the perquisites of employment in higher education.

Conclusions

Strategic human resource management in higher education is a matter of sound professional practice (Gregory, 1996). Even where your organization is mired in traditional personnel administration or where your organization has not yet embraced strategic management on an operational level, your human resource organization can be the agent of change (Ropo, 1993) by following a number of "tried and true" human resource development and organizational development steps, including:

1. Organizational engagement. Meet with key stakeholders and elicit their feedback, develop alliances and partnerships where appropriate.

2. Develop and publish mission, vision and goals for Human Resources that are consistent and in support of the broader organizational mission.

3. Improve upon the transactional administration of human resource management through process mapping and subsequent re-engineering.

4. Develop and publish a human resource strategic plan, that is consistent and in support of the broader organizational strategic plan (if available).

5. Develop metrics for measuring the efficiency of Human Resources.

6. Implement a process for continuous improvement.

7. Continually develop staff.

These "boiler-plate" steps can be replicated in any higher education human resource organization and will spearhead your transformation efforts toward becoming a strategic partner on campus.

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Current State of Technology-enabled Learning Programs in Select Federal Government Organizations: A Case Study of Ten Organizations

Letitia A. Combs
VERTEX Solutions, Inc.

Recent advances in technology coupled with the need to provide cost-effective, timely learning to a large distributed workforce has encouraged federal government organizations to adopt technology-enabled methods for learning delivery. This case study research investigated the current state of technology-enabled learning programs in ten of those federal government organizations.

Keywords: Technology, Workforce Development, Distance Learning

The delivery of learning to a large distributed workforce is a challenge faced by private and public institutions alike. Perhaps nowhere is this challenge more obvious than in the United States federal government. According the to Bureau of Labor Statistics, the federal government is the largest employer in the country. In addition, while most agencies are based in the Washington, DC area, eighty percent of federal employees work in other localities (*Guide to Industries*, 2001).

One way to provide cost-effective, timely learning to such a diversified workforce is through the use of learning technologies that extend beyond traditional classroom instruction. For the purposes of this study, this overall approach will be referred to as technology-enabled learning.

President Clinton (1999) encouraged such an endeavor through Executive Order 13111 which stated that: "A coordinated federal effort is needed to provide flexible training opportunities to employees and to explore how federal training programs, initiatives and policies can better support lifelong learning through the use of learning technology." This directive was reinforced in provisions of the Clinger-Cohen Act and Raines Rules.

Many federal organizations in all three branches of the government have followed the intent of these directives and have instituted a variety of technology-enabled systems to deliver learning to employees. While the specific motives, implementation strategies, technologies and uses of those systems differ among agencies; the need to deliver rapidly changing knowledge in the most efficient manner possible is consistent throughout the government.

This need mirrors the requirements of other organizations. In their 2001 study, Strazzo and Wentling investigated the e-learning practices of selected Fortune 100 companies. They found that, in the large companies they surveyed, the move toward new learning technologies was motivated by a desire to provide immediate access to information while reducing travel and cancelled classes. Furthermore, they discovered that the companies were continually exploring how best to incorporate e-learning into their overall learning system and it was felt, by the companies, that e-learning use would be increasing and that it would be blended into their overall learning approach.

Similarly, James and Beattie (1996) found that organizations were using technology-enabled learning programs to contend with rapid enrollment growth. They also found that the organizations were using a blend of technologies to deliver programs and were careful in their adoption of technology-enabled learning programs. Cost and infrastructure requirements were two critical factors that contributed to the organizations' cautious approach.

A state of the industry survey conducted by Online Learning Magazine and International Data Corporation (Kiser, 2001) found that more than 80% of responding organizations were using some form of technology-enabled learning programs. One of the most important reasons cited for the use of these programs was convenience for employees and other learners, including customers and suppliers. Learners participated in a mix of courses, including user applications, regulatory training, management and business skills, and organizational orientation. As was the case in the previous studies, these organizations incorporated a variety of technologies into their overall learning approach.

Instructor led delivery was by far the most common method used. Other technologies were CD-ROM, videotape, interactive video teletraining (IVT) and web-based courses. The survey found that the use of technology-enabled learning programs was growing within the organizations but the issues of cost and lack of management buy-in were slowing the speed of adoption.

While government organizations do not face the competitive demands of private companies, they do need to quickly provide learning to a global workforce with a limited budget. The bottom line is to make federal employees more productive and provide improved service to the ultimate customers, the American taxpayers.

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Problem Statement and Research Questions

This research builds on the work of Strazzo and Wentling (2001). The particular problem of this research was to assess the current state of technology-enabled learning programs within select federal government organizations. Four research questions provided the structure for the study. Those questions were 1) What are the current learning requirements of the organizations? 2) What media are currently being used to deliver that learning? 3) What information technology and learning delivery technology infrastructure exists in the organizations? 4) What organizational and financial support do technology-enabled learning programs have within the organizations?

Contribution to Knowledge in HRD

Delivery of learning is moving away from a completely classroom-based structure. Public and private sector organizations alike are exploring how to use technologies to provide learning in ways that will meet the needs of learners and support organizational goals while, at the same time, being cost effective and responsive to change. This study is an examination of how such learning programs are being created and implemented within ten federal government organizations.

Methodology

Information about ten United States government organizations is included in this case study. All organizations have a nationally or globally distributed workforce and each organization is either developing or implementing technology-enabled learning programs for employee education. Participating organizations included components of the military, the federal judiciary, and the Departments of Defense, Treasury, Justice, Labor and State.

Between 1998 and 2001, each of the ten organizations conducted a baseline assessment of their learning program. Those assessments were conducted by teams of consultants and organization staff members. Each assessment was tailored to meet the needs of the organization for which assessment was conducted. However, all of the assessments examined the following current-state items:

1. Purpose of learning within the organization;
2. Description of the state of learning programs within the organization;
3. Description of the business structure of learning programs within the organization;
4. Description of the financial status of learning within the organization; and
5. Description of the existing technology infrastructure of the organization.

Each of the assessments was undertaken to identify the current state and recommended future direction for learning in the organization. The overall approach employed for the assessments consisted of a review of existing organizational documentation on the learning program, examination of the goals and objectives of the organization regarding learning in general and technology-enabled learning in particular and surveys and interviews with staff and stakeholders about the current state of learning within the organization.

The ten baseline assessments were analyzed for this multi-organization case study. The unpublished assessment reports are individually confidential. However, they were made available for case study review and analysis to identify the current state of technology-enabled learning in the ten organizations. Descriptions of the current state of the organizations and their learning programs were evaluated in detail. Further information about the current state of the learning programs was obtained from follow-up reports and direct observation of the identified government organizations.

Results and Findings

Scope of the Learning Mission

The ten organizations studied are responsible for the professional education of thousands of workers located throughout the world. In 1998, one organization trained 365,000 individuals in 699 courses, 17 seminars and 43 grants programs. Another organization holds 24,000 classes each year for 400,000 students. That organization has a training travel budget of $40 million. A third organization is limited to offering only entry-level instruction at its training academy because staff, classroom and residential restrictions limit enrollment to 88,000 student weeks a year.

Despite the size of their learning efforts, these organizations have education needs that exceed their current capacity. For example, the first organization has been tasked with adding training for state government and private sector staff its existing effort and experienced staff in the third organization are not receiving necessary continuing education because of space restrictions at the academy.

Providing learning for a large, geographically disperse population is both expensive and problematic. One organization, whose instructional program is almost completely multi-week classroom education, has a travel budget of $1000 per week plus airfare for each student. And, while production is a primary goal of the organization, no monetary estimate is made for time away from the job. Other organizations must provide learning to a global workforce despite technology infrastructure limitations in the field and in remote countries.

Current Learning Requirements of the Organizations

Most of the organizations studied primarily provide technical job-related instruction to a dispersed body of workers. Little administrative or clerical instruction is provided within the ten organizations. Likewise, management and leadership classes are usually received elsewhere. Both staff and policymakers expressed a need for organization-specific knowledge in those areas.

In most of the organizations, specific learning requirements originate from the organization's business units. However three of the organizations base their learning requirements on staff training plans and formal curriculum reviews.

Beyond instruction, each of the organizations has a need to deliver new and changing knowledge to workers in an efficient manner. Many of the participating organizations are using technology-enabled media to communicate that knowledge in a consistent, timely manner.

One organization includes learning in its overall strategic plan. According to that plan, learning should be designed in order to retain workers and to improve effectiveness, productivity and knowledge sharing across business units. The key performance goal for learning is just-in-time knowledge.

Media Currently Used to Deliver Learning

The principal medium currently employed to deliver learning in all the organizations is classroom-based, instructor-led teaching. Eighty to 95% of all courses are delivered in this format. Courses may be delivered entirely in the classroom or may include work simulation components. Classes of a few hours to 18 weeks in length are typically conducted in organizational academies. These learning centers are found in sites across the country. Many are in the Washington, DC area but others are situated in locations such as suburban Chicago, Georgia, Washington state, and New Mexico. Instructors also travel to local sites to deliver instruction.

Two organizations have prescribed on-the-job learning and mentoring programs that supplement classroom instruction. Learners must complete a portion of a mentoring program before attending an instructor-led class. Additional on-the-job learning and mentoring occur after the class is completed.

Seven of the organizations also deliver instructor-led classes via IVT. IVT is a one-way video, two-way audio medium broadcast via satellite. Three of the organizations have on-site studios and production staff to design and deliver instruction on a regular, scheduled basis. Two other organizations have on-site uplink capability but use classrooms instead of studios and broadcast classes on an as-needed basis. The other organizations utilize the studio and uplink facilities of other government agencies, when required.

The military organization uses paper-based correspondence to deliver a large number of courses. Because of limited access to other technologies in the field, it is expected that this medium will continue to be a primary delivery method for off-site instruction. Materials for several of the paper-based courses are being converted to PDF format and will be available on-line for those students with computer access.

Video teleconferencing (VTC), a two-way video, two-way audio medium, is used by six of the organizations for instructional delivery. Two of the organizations have formal VTC instructional programs to deliver teaching from universities to locations throughout the country. The other organizations use VTC for periodic instruction.

One organization is beginning to utilize custom-designed web-based instruction. The instruction will be used for prerequisite and entry-level material and, therefore, will supplement, rather than replace, classroom teaching. Another organization develops custom-designed CD-ROMs for the delivery several courses.

Two organizations offer commercial off-the-shelf (COTS) courseware on their Intranet sites. One of those organizations offers more than 600 COTS courses to learners. Another organization supports a global workforce by distributing several hundred courses from a library of 2700 CD-ROMs. Yet another distributes videotape courses to a worldwide group of learners.

Three organizations are developing learning portals as a way to consolidate COTS courseware, professional information, course catalogs, on-line forms and procedures and other professional resources. The learning portals will be located on the organizations' Intranet sites.

One organization is developing web-accessible courses on Blackboard. The courses are being used in both a stand-alone fashion and to provide in-depth instruction following introductory IVT broadcasts.

Each organization uses a blend of technologies to deliver instruction. The technologies selected are different for each organization. Some factors indicated for selecting technologies include organizational culture, existing infrastructure and custom or off-the-shelf learning needs. The following table summarizes the media used by the organizations to deliver instruction.

Table 1. *Blends of Technologies Used by the Organizations*

Organization	Traditional and Technology-Enabled Media Used
A	Instructor-led learning including simulation exercises, VTC, IVT, Custom-designed web-based instruction
B	Instructor-led learning, IVT, COTS, Job Aids, Learning Portal
C	Instructor-led learning, On-the Job mentoring and training, Learning Portal
D	Instructor-led learning, COTS CD-ROMs, IVT and VTC in domestic locations, Intranet-based COTS courseware
E	Instructor-led learning including simulation exercises, Videotapes, COTS CD-ROMs, IVT, VTC, Web-based COTS courseware
F	Instructor- led learning, On-the Job mentoring and training
G	Instructor-led learning, IVT, VTC, Custom-designed CD-ROMs, Blackboard
H	Instructor-led learning, IVT, Learning Portal
I	Instructor-led learning, Paper-based correspondence courses, PDF correspondence courses, Job aids, VTC
J	Instructor-led learning including simulation exercises, VTC, IVT, COTS CD-ROMs, Intranet based COTS courseware

Information Technology and Learning Delivery Technology Infrastructure Within the Organizations

All of the organizations studied have one or more central locations for the delivery of classroom-based instruction. These academies house classrooms, VTC and IVT facilities, computer laboratories and simulation areas. Other IVT and VTC classrooms are located in area or regional offices. VTC and IVT access is also available at college and National Guard sites.

The computer infrastructure needed to facilitate many technology-enabled learning media is similar among the organizations. Except when located in remote areas, most learners have at least Pentium class desktop or laptop computers with Windows operating systems and Internet and Intranet access. These computers have a range of processor speeds and memory. Most have CD-ROM drives and sound cards. Speakers may or may not be part of each computer system. Adequate bandwidth is available in most domestic and foreign locations. However, locations in many African nations and in parts of Asia have effectively no connectivity.

Workers in the organizations routinely use computers in the jobs. Staff in one organization estimated that as many as 90% of personnel have computer and internet access while a survey of learners in another organization found that 85% of the respondents have access to a computer for their job between 20 and 40 hours per week. Ninety-one percent of the respondents in the same survey indicated that they are at least somewhat comfortable using both a computer and the Internet. Almost all indicated that they would like to receive some form of technology-enabled learning. Fifty percent had no apprehensions about e-learning. However 35% were concerned about a possible lack of interaction with an instructor and class.

Organizational and Financial Support for Technology-enabled Learning Programs

One organization has been directed to create a distance-learning center with the mission to "design, develop, implement and evaluate effective and efficient technology-enabled solutions in support of and in collaboration with, sponsors of that organization's training and education programs." Activity to create this center is currently underway. Another organization states in its strategic plan, that "training should be developed and delivered in the most effective manner through the establishment of a distributed learning capability and curriculum." A third

organization has committed to a goal of have 30% of instruction to be designed and developed for computer based and interactive multi-media delivery systems in two years.

Another organization is actively pursuing utilization of a variety of technology-enabled approaches to learning. The organization has a director of distance learning who has equal status with a director of classroom learning. The organization has a schedule of IVT broadcasts. At least one "live" program is broadcast each week. Taped programs are aired throughout the workweek. Customized CD-ROMs have been developed on a number of subjects. COTS courses are available on the organization's Intranet site and Blackboard courses are offered as requested.

Other organizations are experiencing less support for the use of technology-enabled learning. For example, one organization recently added video broadcasting capability to all classrooms in its academy. However, only one broadcast was delivered in FY 2001. The equipment has been used for video meetings, broadcasts to the desktop within the academy itself and as enhancements to the classroom instruction.

Most of the organizations have no focused budget for technology-enabled learning programs and no specified structure for implementing new learning media. Typically, responsibility for learning is dispersed within the organization and few internal staff are available to design technology-enabled programs. Instructional staff are tasked with delivering content rather than designing programs. Consultants are often used to design and/or develop technology-enabled courses.

Support for creation and implementation of technology-enabled learning programs has increased since the World Trade Center and Pentagon bombings on September 11, 2001. One organization experienced a 45-day travel moratorium thereby causing cancellation of many classroom courses and increasing the use of IVT and VTC facilities. Another was asked to be prepared to redesign all current classroom-based courses for delivery that would require no travel.

Summary

This study investigated the current state of technology-enabled learning programs in ten federal government organizations. The findings revealed that traditional instructor-led classroom learning is by far the dominant delivery method used by these organizations. However, in order to meet the needs of the workforce, each organization is incorporating more technology-enabled media in their learning programs.

As work becomes more complex, the need for professional education is growing rapidly. Providing classroom instruction on needed professional topics is beginning to tax the capabilities of instructors and facilities alike. In addition, classroom instruction cannot supply the just-in-time information that is often needed on the job.

Organizations are using technology-enabled media to expand the capabilities of the classrooms and instructors. For example, IVT and VTC courses are offered to multiple sites at once. This practice limits travel and allows more students to receive instructor-led learning at one time. Learning portals are also being developed. These portals will provide one location for workers to receive e-learning instruction, professional information and job aids such as forms and operating procedures.

The workforce of many federal government organizations is situated throughout the world. Providing instructor-led learning for remote workers is difficult and expensive at best. Technology-enabled learning programs are being used to meet the needs of those workers. Individuals located in cosmopolitan locations can receive IVT, VTC or elearning instruction while workers located in areas with limited connectivity can receive paper-based correspondence courses, videotape or CD-ROM instruction.

Currently, instructor-led learning in most of the organizations studied is limited to technical subjects. However, the organizations also have needs for supervisory, managerial, administrative and clerical courses. The use of COTS courseware is allowing these organizations to expand the training subjects offered to workers. Placing COTS courses on learning portals along with job aids is providing needed just-in-time knowledge to segments of employees that were previously overlooked.

Strazzo and Wentling (2001) found that the Fortune 100 organizations in their study were investing up to 50% of their training budgets in elearning. The government organizations studied for this research are utilizing e-learning to a more limited degree. Instead, emphasis is currently being placed on visual technologies such as IVT and VTC. Of those organizations that are developing elearning, only one is producing customized web-based instruction. Others are utilizing COTS courseware, designing portals to consolidate learning and performance-support materials, or designing instruction with templates such as Blackboard.

While the federal government organizations studied are using more technology-enabled learning programs each year, organizational structure and financing is sometimes limiting the speed with which new technologies are incorporated. Lack of organizational focus and budgeting for technology-enabled learning programs is forcing piecemeal acquisition and implementation of both hardware and courseware. Equipment varies among locations.

Technologies and course development vary among business groups and coordination of delivery is difficult because of the differences. Government-wide buying consortiums are allowing easier purchasing of technology items, but rigid budget structures and a lack of coordinated planning for technology-enabled instruction within organizations are resulting in disjointed approaches to design and implementation of programs.

Conclusions and Recommendations

Use of technology-enabled learning programs will continue to grow within the federal government. The need for learning is exceeding the current capacity of organizations to provide instruction using traditional methods. Organizations are being asked to provide learning for additional people and in added subject areas.

Such requirements cannot easily be met using traditional learning approaches within the conventional classroom infrastructure. They will require utilization of a variety of learning solutions. While instructor-led classroom teaching will continue to provide the foundation for education programs in the federal government, that foundation will be supplemented by a variety of technology-enabled media.

E-learning will be one component of a blended approach to learning delivery. E-learning will consist of some customized web or CD-ROM based instruction. It will also include COTS courseware and instructor-designed classes using products such as Blackboard. Learning portals are expected to be used to provide a central repository for e-learning and other professional resources.

Video technologies will continue to be important media for learning within the federal government. Federal organizations have the hardware infrastructure needed to broadcast and receive both IVT and VTC programs. Currently, programs are most often received in a classroom setting. New technologies will allow desktop receipt of broadcasts.

While a baseline infrastructure of computer, video and traditional teaching capabilities exists, specific capabilities are varied among and within government organizations. Any new technology-enabled learning approach must take that variance into account. New programs must consider both the learning and technology needs of the audience and the organization.

Curricula must be flexible enough to accommodate a variety of media. Instructors and instructional designers must be able to create and deliver quality learning using methods other than traditional classroom instruction. Programs must have the capacity for ongoing and immediate changes in content and delivery. Materials must be available for just-in-time use by those who need them.

Change happens slowly in the federal government. Complex budget structures and bureaucratic organizations have been established to facilitate care and oversight. New initiatives that don't fit somewhere within traditional structures are difficult and time-consuming to implement. New learning technologies will be adopted though either priority action or by utilizing existing structures for implementation.

The organizations that participated in this study have the capacity to incorporate more technology-enabled learning into their programs. Successful blending of learning solutions will be realized when workers in those organizations can receive instruction or information when they need it, where they need it, in a form that is useful to them.

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Technology-Based Training: A Review of the Theory and Literature

Chemin Chu
University of Minnesota

The purpose of this review is to explore technology-based training (TBT), which is one of the future trends of training delivery. Included in this review are the definitions, benefits, and limitations of TBT; learning theories applied to TBT; contributions of TBT; and recommendations to Human Resource Development professionals for TBT utilization.

Keywords: Technology-Based Training (TBT), Andragogical Model, Events of Instruction

Many industries—particularly those with higher than usual employee turnover—use technology-based training (TBT) for employee orientation because training costs can be significantly reduced (Greinsing-Pophal, 1998). In addition to primary job training, TBT also provides cross-training in non-primary job functions, thereby reducing costly employee turnover and improving employee morale and quality of work (Cavanagh, 1993). Both corporations and universities are currently developing TBT systems; specifically, IBM has built an approach that measures the monetary benefits of the TBT for thousands of employees, and the University of Illinois at Urbana-Champaign has created an entire online learning evaluation system (Buren, 2000).

A recent survey of training, human resource (HR) and information technology (IT) professionals found that 94 percent believe TBT to be a practical option for teaching professional development skills; 74 percent believe TBT will become the norm within five years; and 81 percent believe TBT provides a cost-effective alternative or supplement to classroom-based instruction (St-Amour, 2000). Further, investment in education has increased substantially as more demands are put on employees. Based on a 1998 survey conducted by *Training Magazine*, corporate spending on training has increased by 26 percent over the last five years. Additional research that investigated the types of instructional methods and media to deliver industry training found that, from 1999 to 2000, CD-ROM/computer-based training had increased 20 percent; Internet/www training had increased 15 percent; and intranet/organizational internal network training had increased more than 26 percent (Staff, 1999, 2000). As TBT continues to gain credibility as a cost-effective means through which to deliver training, undoubtedly more and more companies will encourage employee participation. Industry estimates predict that by 2003, no less than 30 percent of all training will be delivered over corporate intranets (Ryan, 2001).

Problem Statement and Research Question

Obviously, TBT is not only a trendy training approach for all industries, it is also gaining popularity at various academic institutions. Despite its reception, however, TBT also has limitations. This paper is focused on an issue of particular importance to the human resource development (HRD) field: how practitioners can most effectively maximize TBT's strengths for employee training. Therefore, the purpose of this study is to discuss current literature related to TBT and that literature's implications to HRD practice. In order to answer the problem statement and understand how HRD practitioners can practice in a TBT project, this paper will explore the following questions: (a) What is TBT? (b) What are the benefits of TBT? (c) What are the limitations of TBT? (d) What are the roles and responsibilities of HRD practitioner in TBT projects? (e) How can HRD practitioners take full advantages of TBT's strengths to ensure success?

These five questions will answer the research question: What can HRD practitioners contribute to TBT?

Methodology

The methodology for this study is a conceptual analysis derived from a review of related TBT literature. In their book, *Technology-based training: The art and science of design, development, and delivery* (1999), Kruse and Keil discuss numerous TBT issues, including basic information, adult learning, instructional design, technology selection, interface design, and various phases of TBT project management. Further, the authors integrate other articles from various complementary fields (e.g., business and computer science) to analyze and synthesize theories and critiques of current TBT implementation. In addition to Kruse and Keil's book, many related journal and Internet articles

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were also selected as resources to answer these questions. Due to major development of TBT as web-based training and computer-based training, the author also searched those two keywords to locate articles. This paper will present and discuss the research questions, then formulate conclusions and make recommendations based on findings.

Results and Findings

The Definition of TBT

There are many terms associated with TBT, including technology-based learning, computer-based training (CBT), computer-based learning (CBL), computer-based instruction (CBI), computer-based education (CBE), web-based training (WBT), Internet-based training (IBT), intranet-based training (IBT), browser-based training (BBT), distance learning, desktop training, desktop video conferencing, interactive training, and computer-assisted instruction (Hall, 1997; Kruse & Keil, 1999). In general, TBT is no more complicated than an effective use of technology to deliver training and educational materials; TBT is the all-inclusive term for training delivered by various methods. In the past, such methods have included the use of mainframe computers, floppy diskettes, multimedia compact disks, read-only memory (CD-ROM), and interactive videodisks. Most recently, training delivery via Internet and intranet have become preferred options (Kruse & Keil, 1999). Cavanagh (1993) further described this type of training delivery:

> [TBT] includes a wide variety of video and computer-based training products. TBT allows experts to capture their knowledge of a particular area and deliver it to students in a format that facilitates learning and retention. Also, TBT may be repeated at no charge and delivered more cost-effectively than traditional instructor-led training (p. 31).

St-Amour (2000) also provided a definition of TBT and discussed its growth and applicability:

> TBT -- the use of software, computers, the Internet, CD-ROM learning tools, video streaming and other technologies -- is growing at about 30 percent annually. TBT is increasingly being applied by organizations to provide professional development or soft skills, not just technical training, because the technologies can create realistic, highly-interactive, computer-based simulations (p. 13).

To conclude, TBT applies technologies—such as software, computers, the Internet, CD-ROM, and video streaming—to deliver and provide learners with the knowledge and skills required to complete a specific task or job for the purpose of increasing their capabilities to perform that task or job.

Benefits of TBT

Technology comprises the ideas and the machines that human beings develop to meet their needs. Therefore, applying technology in the workplace creates more convenient, more reliable, and more effective environments in order that people can work efficiently and productively. TBT has many advantages for both trainers and learners that can be developed rapidly and are accepted by most industries. Many researchers have listed advantages that are integrated into three points: convenience, reliability, and efficiency.

Convenience. The biggest benefit of TBT is saving time from traveling and waiting for training. There is very strong evidence that TBT requires less time for learner participation than instructor-led training (Hall, 1997, p. 108). Although the most common rates of time reduction are from 40-60 percent, some examples range from 20 percent to a high of 80 percent reduction of participant time.

Moreover, the learner can set up their own schedule and their learning pace from the TBT. As adult learners, TBT participants can schedule their technology-based training for virtually any location and time, conditions that are impossible with instructor-led training (Hall, 1997; Kruse & Keil, 1999; Ouellette, 1999). Learners also can reduce their own education-related stress and increase satisfaction of the training experience through TBT. Not only are employees who are trained using TBT able to acquire knowledge at their own pace, they can practice skills without feeling threatened or embarrassed (Galloway, 2000; St-Amour, 2000).

Reliability. TBT can create a safe learning environment for learners that allows them to practice tasks safely without the risks and costs associated with the real environment (Arkin, 1994). For example, computer-based simulations enable ambulance drivers and aircraft cabin staff to practice emergency procedures without endangering patients or passengers. Another reliability factor of TBT is its consistent delivery of training programs. TBT enables employers and HR professionals to ensure consistency of delivery as well as technology-based simulations for assessment purposes (Arkin, 1994; Kruse & Keil, 1999). Mumford (1998) also indicated that TBT is planned, structured and delivered through an extremely consistent process, and can be excellent at delivering knowledge .

Efficiency. First, TBT is cost-effective. Many costs can be reduced or eliminated altogether through TBT use (e.g., instructors' salaries, meeting-room rentals, learner travel and per diem, lodging, and meals). In addition, TBT can be implemented and accessed with minimum disruption to employees' typical work schedules, which may be the most positive result of this delivery method (Cavanagh, 1993; Galloway, 2000; Kruse & Keil, 1999; Moore, 1998). As an effective way to train individuals to operate virtually any piece of machinery, TBT is also generally cheaper than using real machines in a real work environment with real supervisor oversight (Arkin, 1994). Moreover, as world needs change, employees in all competitive domestic and global markets need to remain current with the increasing demand for more knowledgeable and skilled workers. Multiple sources suggest that TBT is one of the most effective ways through which employers can add substantial knowledge and skills to their workforce populations (Galloway, 2000; Moore, 1998).

Second, TBT is simple for employers to manage. TBT offers the ability of employer, trainer, and employee to track progress and measure results quickly and efficiently so that they are able to see the results of employee training immediately and effortlessly. As a result, TBT can increase employee's retention. Kruse & Keil (1999) specified that, on the average, TBT use increases employee retention rate by 25 percent over more traditional methods of training. The departure of TBT from traditional methods is one indication of employer willingness to provide for their employees' professional development. Since employees are more inclined to remain loyal to an organization that is committed to their on-going development (Galloway, 2000; Moore, 1998), use of TBT might also increase employee morale.

Third, TBT provides an interactive environment that enables user learning actively and effectively. TBT participants can download courses using a Web browser or participate in the courses interactively while they are connected to the Internet. Furthermore, chat rooms or discussion lists can provide a level of interaction among learners and even trainers (Hall, 1997; Kruse & Keil, 1999; Ouellette, 1999). Some learners, who may be reticent to participate in live class discussions, may also become more active in TBT settings than in instructor-led training.

Finally, TBT content is easy to update. TBT can be used to impart new knowledge and skills very quickly, which is a great benefit for all businesses in the current, fast-paced global economy (Hall, 1997; St-Amour, 2000).

Limitations of TBT

The limitations of TBT can be viewed from technology and learner perspectives. From the technology perspective, corporations need to invest great expense in equipment before they can implement TBT. Hefty capital investment costs pose a real barrier to greater use of TBT methods, especially those methods that involve computer-driven multimedia systems that combine sound, text, and graphics (Arkin, 1994). In addition, by using the Internet as the major delivery method of TBT, employers must also consider that employees may experience limited bandwidth with use of their personal home computers. This limitation means slower performance for sound, video, and even extensive graphics (Hall, 1997), especially when some employees still—slowly—browse the Web with 28.8K dial-up modems from those home computers. Obviously, such slow speed may reduce both the learning process itself and the effectiveness of TBT as a learning method. Fortunately, there are two keys to future TBT growth: (a) the dramatically increasing power of the industry-standard personal computer, and (b) the emergence of powerful storage and retrieval systems at reduced costs (Cook, 1992). Unfortunately, at present, it still takes more time and costs more money to develop TBT systems and programs (Hall, 1997; Kruse & Keil, 1999).

From a learner perspective, the major limitation of TBT is that some learners have technophobia, which may reduce the effectiveness of TBT, since decreasing instructor-led training may make those learners extremely uneasy (Hall, 1997; Kruse & Keil, 1999). Further, TBT is likely to be less effective than other methods in helping people to develop insights (Mumford, 1998). Many TBT programs are the focus of training and practice, which does not involve development of high-level cognitive skills such as problem solving. In addition, gaining knowledge of or skills in areas that involve complex physical-motor skills (e.g., component wiring) or emotional aspects (e.g., mediation) are also limited by TBT use (Hall, 1997; Kruse & Keil, 1999).

Even though limited bandwidth may be a problem for TBT implementation, due to rapid technological development, it may not be a problem in a few months or even weeks. Other limitations (e.g., high expense and learner technophobia) can also be controllable through needs assessment and analysis.

Roles and Responsibilities of a TBT Project

Kruse and Keil (1999) suggest that to create effective TBT requires myriad responsibilities and specialties from members of a project team. These team member roles include: (a) the client-sponsor, who acts on behalf of his or her organization to ensure TBT project creation and development, and is responsible for the success or failure of the

TBT; (b) the project manager, who ultimately guarantees on-time, on-budge delivery of a TBT solution, and is responsible to the client-sponsor for the quality of the finished product; (c) the subject matter expert (SME), who contributes the core content and original materials, is available for information collection through interv iews, and is responsible for accuracy of the design documents, scripts, and final deliverable; (d) the instructional designer, who has background in instructional design, psychology, education, or multimedia technology, and conducts high-level analysis of performance-goals, target audiences, training needs, and technology limitations; (e) the writer, who creates and revises an outline and script which that dictate the words, images, video and audio elements presented to the audience, applies navigation direction to the scripts, and adds notes to indicate special functions, links, or other software behaviors; (f) the graphic artist, who creates screen layouts and interface items, such as bottoms, windows, menus, graphics and animations, from the blueprints created by the instructional designer and writer; (g) the programmer, who assembles different elements, such as text and animation, into a coherent whole, debugs the program following alpha and beta tests, creates databases, and constructs reporting mechanis ms used for learner tracking; and (h) the quality reviewer, who works internally during development, alpha and beta stages, to check the program for quality and bugs, and creates change reports.

The practitioner is most likely an instructional designer who assesses training needs, designs documents, and takes charge of the formative and summative evaluations. Even though good TBT practitioners need a basic understanding of technology to know what is possible given certain technological realities, practitioners should possess the abilities Kruse and Keil (1999) cited as necessary for the best instructional designers: they quickly and accurately recognize the gap between performance and knowledge, and appreciate and apply a breadth of adult learning theories.

Gap Analysis – Performance Analysis Flow Diagram

The technique of gap analysis is used to analyze/assess current skill and knowledge and future expectations. A gap analysis is also referred to as a needs assessment or a needs analysis, which is a process by which an organization's HRD needs are identified and articulated (DeSimone, Werner, & Harris, 2002). The analysis phrase simply identifies the gap between actual behaviors and desired outcomes, and obtains information about the learner, environment, and technology that are relevant to closing the gap. Mager and Pike (1997) presented the Performance Analysis Flow Diagram (see Figure 1) to analyze performance problems. The flow diagram not only illustrates each of the steps in the procedure, but also identifies and resolves the problem as quickly as possible. Furthermore, it provides an easy method to communicate with insiders and outsiders without using jargon. Therefore, a Performance Analysis Flow Diagram is the top choice of practitioners to practice gap analysis.

Adult Learning Theories

HRD practitioners always refer to adult learning theories to develop training programs. To apply adult learning theories to TBT, practitioners make it more user-friendly and attractive to those learners who feel uneasy about getting training from technology. The andragogical model has stood for many years as a central model of adult learning. Knowles, Holton, and Swanson (1998) proposed an andragogical model (see Figure 2) in practice that contained six-core adult learning principles:

1) *The need to know.* Adults need to know why they need to learn something before undertaking to learn it. To apply TBT, the course should begin with an emphasis on the specific benefits of the topic, and objectives that learners can apply directly to their work.
2) *The learners' self-concept.* Adults have a self-concept of being responsible for their own decisions, for their own lives. Once they have arrived at that self-concept, they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction. Palmer and Smith (1990) defined a self-directed learner as "a learner who can identify what they want to learn, can determine the resources necessary to learn it, and can evaluate themselves honestly to see what it is they have learned" (p. 82). If the learner does not take self-direction as their principle, TBT will succeed less than it expects. Therefore, the analysis phrase of TBT needs to take the prospective audience assessment into account.
3) *The role of learners' experience.* Adults come into an educational activity with both a greater volume and a different quality of experience from youth. Prior experience could be the resources and mental models through which they learn new knowledge through connection. When this principle is applied to TBT, questions that arise from previous work experience should be addressed and combined with the learners' previous experiences to find other approaches of problem-resolution for the future.

4) *Readiness to learn.* Adults typically become ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situations. TBT could provide an interactive screen on which learners could click to obtain certain concepts and information from which they could effectively learn.
5) *Orientation to learning.* Adults are motivated to learn to the extent that they perceive that learning will help them perform tasks or deal with problems that they confront in their life situations. According to this principle, the TBT courses should be designed to access on-line information immediately so learners can look up the website and apply their learning immediately to their own situations.
6) *Motivation.* Adults tend to be more motivated toward learning that helps them solve problems in their lives or results in internal reward. Knowles, Holton, & Swanson (1998) indicated that motivators for adult learners are internal (e.g., self-esteem and quality of life) rather than external (e.g., better jobs and promotions). TBT could give practical examples of how to arrange each objective to motivate the to audience continue to learn.

Figure 1. Performance Analysis Flow Diagram

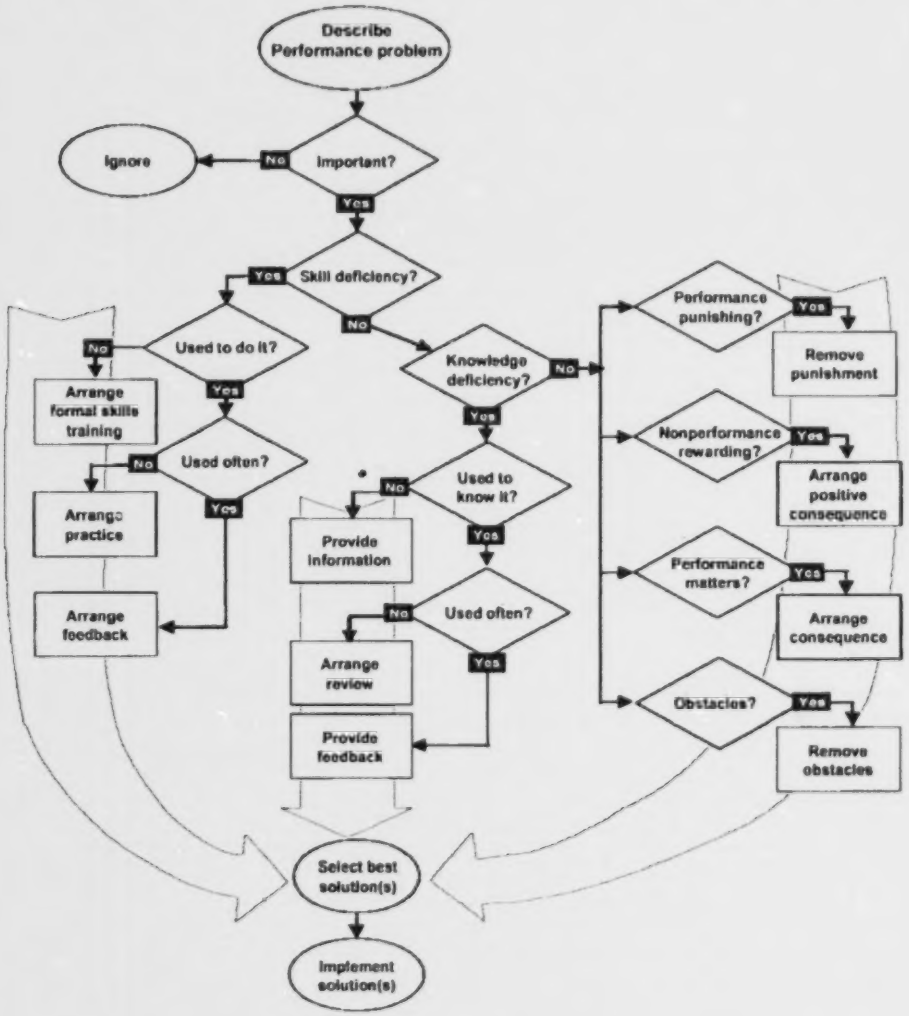

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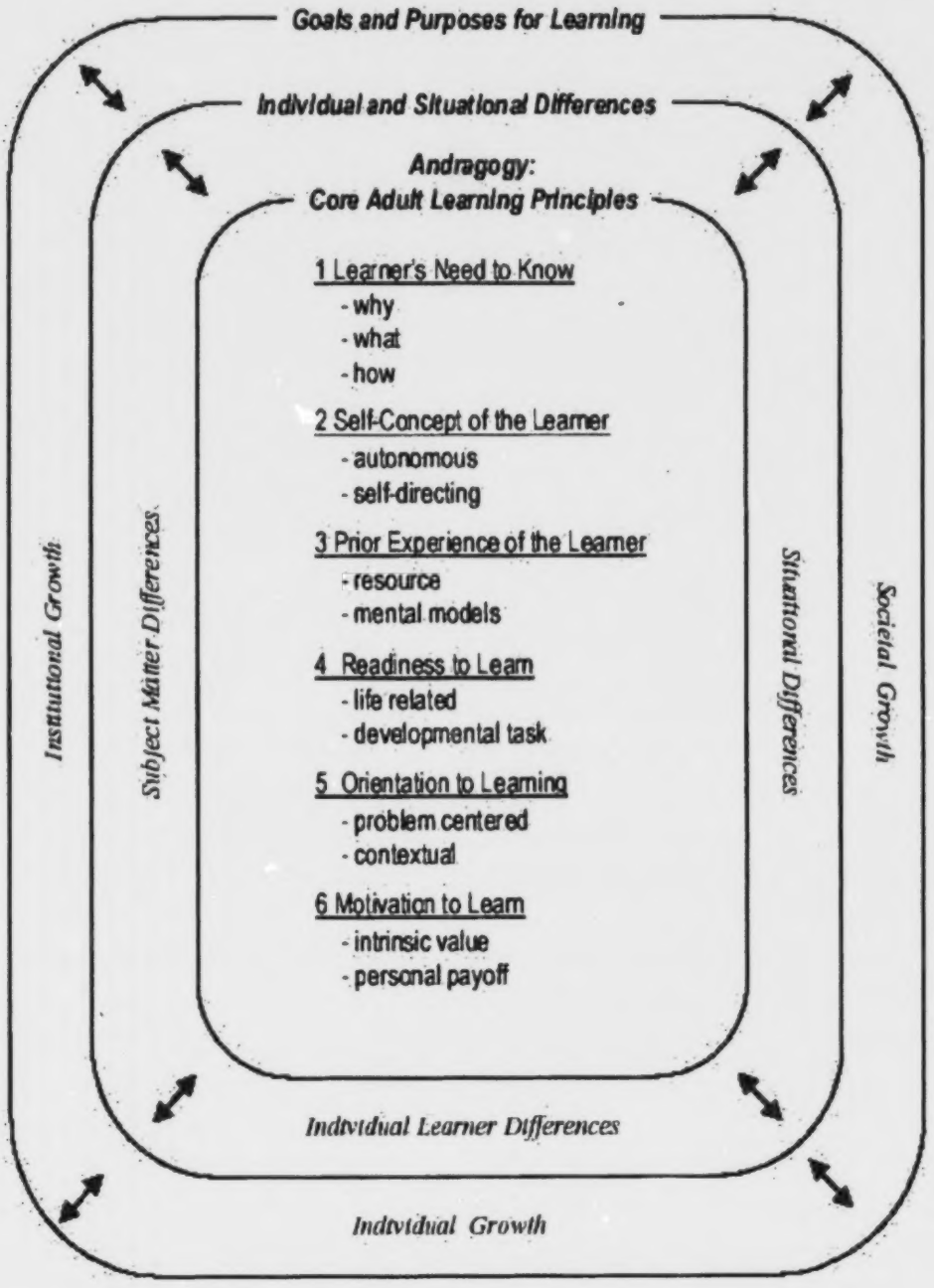
Figure 2. Andragogy in Practice Model



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Besides the andragogical model of adult learning, Gagne's nine events of instruction is also considered a systematic approach to instructional design and training. It focuses on training outcomes and behaviors through a nine-step process called the Events of Instruction (Gagne & Medsker, 1996), which correlate to and address the conditions of learning. The Events of Instruction are:

1) *Gain attention.* TBT can apply multimedia programs to increase a learner's attention. In addition, providing clear benefits and objectives at the beginning of the training session also attracts the learner interest.
2) *Inform learners of objectives.* In this step, Mager (1997) suggested that objectives be related to intended outcomes, and also that they be specific, measurable, and concerned with learners, not instructors. The objectives initiate the internal process of expectancy and help motivate the learner to complete the training.
3) *Stimulate recall of prior learning.* Kruse & Keil (1999) proposed a simple method through which instructors may ask questions about previous experiences, about understanding of previous concepts, or about a body of content. Therefore, learners can easily associate new information with prior knowledge to facilitate the learning process.
4) *Present the content.* When a new content is going to be presented to learners, the instructor needs to address it in a meaningful and organized manner so learners are not confused and lost. TBT can present screen images captured from the live application software and audio narration before a demonstration is performed.
5) *Provide learning guidance.* Examples and case studies can be presented before a learner enters a new course to provide guidance about the logic of new knowledge and skills.
6) *Elicit performance (practice).* After a new concept or skill is learned, an exercise is appropriate for learners to practice. With a real operation, learners are able to understand the meaning of the concept or skill, then keep motivated to continue the learning experience.
7) *Provide feedback.* After practicing new concepts or skills, it is important to offer instant and direct feedback on learner performance. Feedback provides an opportunity for learners to confirm their correct understanding, and the concept repetition further increases their likelihood of retention (Kruse & Keil, 1999).
8) *Assess performance.* An assessment or exam is required for learners to understand the level of their mastery of new knowledge. The result can provide both instructors and learners with some idea of what they have completed, as well as what they still need to learn. Assessment would ensure that TBT has successfully transferred new knowledge.
9) *Enhance retention and transfer to the job.* Before TBT was widely used, the analysis phrase ensured that learners could practice their new knowledge or skills in their current positions. However, a following up evaluation is needed to obtain feedback about the TBT.

Compared to these two learning concepts, Knowles, Holton, and Swanson's andragogical model suggests how adults learn well before training, and Gagne and Medske's Events of Instruction offers directions as to how adults learns while training is delivered. HRD practitioners can combine both theoretical concepts into TBT to enhance the capabilities of instructional designers. In addition, reading trade magazine columns, such as *Business Week* and *PC Magazine*, is a straightforward way to gain basic information about technology and new ideas of delivery techniques.

Conclusions and Recommendations

Humans invent tools (e.g., hammer and axe), then machines (e.g., automobile and electric saw), and now, machines with technology (e.g., computer and cell phone). New technology develops almost as fast as our imaginations. While comparatively large computers displayed only black and white text a few years ago, today's large capacity machines provide exceptional audio, video, and graphics capabilities as the norm. All these inventions increase productivity. HRD connects humans and machines because HRD is concerned with human development and how to increase the capability to use machines efficiently and safely in order to improve job performance. Through rapidly growing technological development, many convenient organizational tools will also be created. TBT, a relatively new learning technology, was created with the advantages of more convenience, more reliability, and more efficiency than instructor-led training as a delivery method. TBT can be applied to decrease the amount of corporation budget previously spent on employees' turnover. Furthermore, effective TBT can also directly enhance both an organization's performance and competitive advantage. Therefore, TBT has grown rapidly in recent years, and may well become the major industrial training approach of the near future, one that can be accepted by learners with all kinds of learning styles.

However, to complete a TBT project requires many different fields of expertise to ensure success. HRD practitioners, in their role of instructional designer in TBT, possess the experience of completing gap-analysis and the background of adult learning theories that play an active role in a TBT project. The literature identified that an excellent practitioner in TBT has basic knowledge of technology so s/he can easily apply contemporary technology into practice. This paper suggests that reading columns from PC Magazine and Business Week is an effortless way to obtain sensitivity about today's technology.

With unlimited horizons in technology development, TBT also has boundless development abilities in all kinds of subjects such as general orientation training program or specific leadership training programs. More research is needed to explore the effectiveness of TBT. For example, further research can be conducted to compare TBT and instructor-led training in the same subject, such as train-the-trainer, to examine the limitations or increase the creditability of TBT. In addition, case study in TBT is extremely valuable to develop further learning theories with new instructions and environments.

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Recurrent Themes in E-Learning: A Meta-Analysis of Major E-Learning Reports

Consuelo L. Waight
Pedro A. Willging
Tim L. Wentling
University of Illinois at Urbana-Champaign

A meta-analysis of 15 major e-Learning reports provides a basic insight on what government, business, and professional organizations are saying about e-Learning. Findings, though basic, look at the purpose of the e-Learning reports, features of e-Learning and the trends affecting e-Learning.

Keyword: E-Learning, Policy Reports, Meta-analysis

E-Learning sometimes referred to as online learning, web-based learning, distance learning and technology-based learning, among other names, is a concept that has garnered significant global attention (Gotschall, 2000; Hall, 1997). Though the history of e-Learning (primarily distance learning) dates to the early 1950's and even before (Saba, 1999; Clark, 2000; Rosenberg, 2001), not until the last eight years has it become a momentous, collective imperative of several entities. This broad attention to e-Learning has resulted in numerous e-Learning reports. In doing extensive web searches for e-Learning reports, the researchers estimate that more than 250 e-Learning reports, excluding white papers, have been released worldwide over the last three years; by governments, business, academia and professional associations.

Problem Statement

The significance and relevance of technology and education has gained momentum; research on e-Learning is imperative. The discourse on e-Learning has focused on topics such as the effectiveness of e-Learning (Strommen & Lincoln, 1992; Harasim, Hiltz, Teles, & Turoff 1996; Webster, & Hackley, 1997), evaluation of distance education (Magalhaes, & Schiel, 1997; Thomas, 2000; Clark, 2000), e-Learning issues (Jonassen, 1992; Sherry, 1995; Banas & Emory, 1998), comparison of traditional and online learning (Saba, 1998; Ponzurick, France, Russo, & Cyril, 2000), and learning needs of organizations and their human resources amidst the technological, social and economical forces affecting the world (Gotschall, 2000; Karon, 2000; Wentling, Waight, King, 2002). Though not exclusive, and with little synthesis existing among these topics, the importance and challenges of e-Learning is omni-present.

With e-Learning being a huge imperative for government, business, and professional associations, and with these institutions being major players in the advancement of e-Learning, it is important to be cognizant of and synthesize what these institutions purport about e-Learning. These institutions have published various reports, their common discourse on e-Learning, however, is unknown. If government, business, and professional associations are leading the advancement of e-Learning, it is critical that there be cognizance on what these institutions say about the purpose, features and trends of e-Learning. This basic information can be the foundation to focusing research on e-Learning, a focus that is direly needed. Thus, this meta-analysis of e-Learning reports focuses on the following questions: (1) What is the purpose of e-Learning reports?; (2) What are features of e-Learning?; (3) What are the trends affecting e-Learning?

Conceptual Background

E-Learning is the acquisition and use of knowledge distributed and facilitated primarily by electronic means. This form of learning currently depends on networks and computers but will likely evolve into systems consisting of a variety of channels (e.g., wireless, satellite), and technologies (e.g., cellular phones, PDA's) as they are developed and adopted. Elearning can take the form of courses as well as modules and smaller learning objects. Elearning may incorporate synchronous or asynchronous access and may be distributed geographically with varied limits of time (Wentling, Waight and Kanfer, 2000).

The history of the technological revolution reveals that of all the sectors of society, education remains at the bottom of scale when it comes to integrating information technology (Strommen & Lincoln, 1992). The initial slow integration of technology into education can be a derivative of the early visions of distance education.

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Matthews (1999) indicated distance education was first and foremost a movement that sought not so much to challenge or change the structure of higher learning, but to extend the traditional university and to overcome inherent problems of scarcity and exclusivity.

As we move into the 21st century this vision of distance learning has changed as the delivery of education now extends to commercial centers. Along with personal productivity software, windows environments, local area networks, client server computing, internets, intranets, and extranets has come the introduction of personal digital assistants (PDA), and mobile and wireless technologies. These technological advances have enabled electronic commerce systems, anytime, anyplace data retrieval and updating, education, professional development, and the rapid growth of e-Learning (Wentling, Waight & King, 2002; Close, Humphreys, Ruttenbur 2000; Webster & Hackley, 1997).

As the integration of technology and education becomes addressed and as innovative information technology continues to surprise us, it is critical that a systemic approach to the organizational, process and individual (Rummler & Brache, 1992) issues such as insufficient empirical research, minimal application of research to practice, and application of traditional instructional design and teaching methods need to be addressed. In addition, the ineffective use of technology, the absence of the learner in the instructional design, antiquated policy; intellectual property and inadequate online teacher training are other issues affecting the effective integration of technology and education. Swanson (1999) related that, a wide range of systemic disconnects adversely affect performance. McNamarra (2001) related, 'a system is a collection of part unified to accomplish an overall goal. If one part of the system is removed, the nature of the system is changed as well'. (p.1). Cognizance that there are multiple factors that need concerted, consistent attention, is crucial, if e-Learning is to move from promise to practice. Learning and performance need to be seen, by every organization that implements e-learning, as outcomes of all the resources that go into any e-Learning effort. A strong partnership needs to be recognized and realized among all individuals and institutions involved in e-Learning.

At present, the systemic disconnects run across four main institutions: they are: government, business, academia and professional associations. Very few studies, for example, capitalize, extend or review existing research studies. Even more so, very few studies, move from research to practice. Thus, e-Learning continues to be plagued by learner, faculty and administrative issues. The issue of learner interaction, for example, has been researched in various but limited contexts (Webster & Hackley, 1997; Sherry, 1995; Ponzurich, France, Russo and Cyril, 2000; Thomas, 2000; Moore & Thompson, 1990, 1997). E-Learning reports, another example, are growing in number, however we do not know is what is in common across these reports.

Simply stated, there is presently a flurry of e-Learning research projects – few, if any, however, are making an impact on practice. Systems theory as a philosophy and systemic approach as a method for the government, business, academia and professional associations in their e-Learning efforts could start to bring changes in how we approach research and development of e-Learning.

Methodology

This study is the first part of a three-phase research project on e-Learning. The phases are: 1) identify e-Learning themes, 2) understanding the social, economic and research dimensions of e-learning, and 3) comparing themes between US and European e-Learning reports. The purpose of the first phase of the project, that is reported herein, is to identify the recurrent e-Learning themes. This is a qualitative study that intended to explore themes in the e-Learning reports. The major method of data collection was web searches using Metacrawler, Yahoo, Google and Lycos as the search engines. The reports provide rich descriptions (qualitative data). The qualitative data were content analyzed to provide recurrent themes. Content analysis is a research technique for systematically examining the content of communications, in this case, the e-Learning reports (Gall, Borg, & Gall, 1996).

Selection of Reports

A three-year span (1999-2001) was chosen to select the most recent and most cited public e-Learning reports published in the United States. Reports in this study do not include white papers, or research articles; they represent reports written by a group or organization. The rationale for choosing the most recent and most cited reports is that to identify the common denominator in the e-Learning reports. The reports used in the analysis needed to have some sort of impact on the knowledge base in e-Learning. Thus, the reports most commonly cited were considered significant and these reports were generally the most recent.

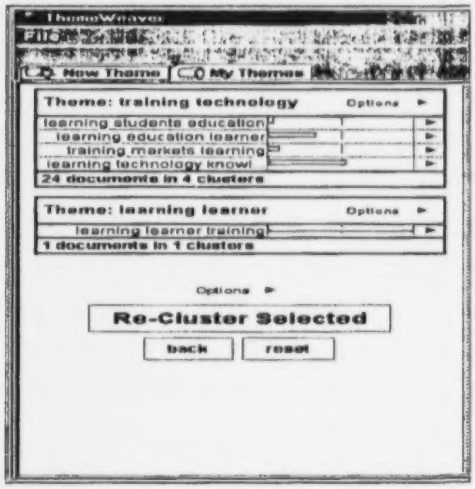
To identify the e-Learning reports, the researchers searched the web extensively using Metacrawler, Yahoo, Google, and Lycos. Understanding the dynamic nature of the web, an estimated 250 e-Learning reports were published world wide from 1999 to 2001. Of these 250 reports at least 100 were published and are presently sold by private companies for prices between 100 and 3000 dollars. Of the remaining 150 at least 70 reports were published outside of the United States. The researchers reviewed research articles, white papers, and e-Learning portals to identify which among the remaining 80 reports were the most cited reports. Fifteen (15) reports were the most recurrent and their sources were government, business and professional associations. These 15 reports altogether contained 1169 pages.

Analysis of Reports

The first level of analysis involved reviewing the first three pages of the reports for their sources. Second, the researchers reviewed the reports for keyword and phrases by using 'Theme Weaver', content analysis software, developed by the Automated Learning Group at National Center for Supercomputing Applications. Following is a description of 'Theme Weaver' that provides a description of how the analysis was done.

Some of the keywords that Theme Weaver produced were: training technology, learning learner, information, workers work, time technology, technology learning, training time, work user learning, performance learning technology, learning market, and education training technology, time products, future individuals, project products, learner business, time knowledge work, and adult economy policy, and knowledge people organizations.

The following shows the theme results of one search using Theme Weaver.



Third, the researchers used the 'NVivo', a qualitative software tool, to further understand the keywords produced by 'Theme Weaver'. NVivo produced the specific paragraphs were the keywords appeared in the reports. The researchers then reviewed the paragraphs to understand the context of the keywords and phrases. This review led to the identification of the research questions:

1. What is the purpose of e-Learning reports?
2. What are features of e-Learning?
3. What are the trends affecting e-Learning?

The fourth level of analysis was content analysis of the reports using the research questions as keywords. The researchers reviewed each report consecutively by research question. Content analysis is a research technique for systematically examining the content of communications--in this instance, the reports. Emergent themes were ranked by their frequency of mention and were ultimately categorized. Essentially, the study used a qualitative approach to analyze the responses. A quantitative method in the form of frequencies and percentages supported the

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qualitative data. The qualitative method was considered an appropriate way to explore the reports because of its descriptive nature to understand the whole of an event through insight and discovery (Bogdan & Biklen, 1992).

Results

The total number of reports analyzed was 15. The reports' sources were four government, seven businesses, and four professional training and development associations. The following are a description of reports and their sources.

Government Reports

1. President's Information Technology Advisory Committee (February 2001) Using information technology to transform the way we learn. Report to the president. http://www.itrd.gov/pubs/pitac/pitac-tl-9feb01.pdf
2. US Department of Education (December 2000) e-Learning - Putting a world class education at the fingertips of all Children - http://www.ed.gov/Technology/elearning/index.html
3. Web based Education Commission (December 2000). The Power of the Internet for learning: Moving from Promise to Practice. http://interact.hpcnet.org/webcommission/index.htm#report
4. US Department of Labor (September 1999). Futurework - Trends and Challenges for Work in the 21st Century http://www.dol.gov/dol/asp/public/futurework/report.htm

Business Reports

1. Bank of America Securities. Education Industry Overview (September 1999). The e-bang Theory - http://www.masie.com/masie/researchreports/ebang.pdf
2. Wit Capital (August 1999) The e-Knowledge Industry. E-Knowledge – New ways to build the new economy http://www.witcapital.com/research/reports/eknow_19990811/eknow_990811.pdf
3. WRHambrecht+CO (March 2000). Corporate e-learning: Exploring a new frontier http://www.wrhambrecht.com/research/elearning/ir/ir_explore.pdf
4. Thomas Weisel Partners (January 2000). Riding the big waves http://www.masie.com/masie/researchreports/b2breport.pdf
5. Suntrust Equitable Securities (March 2000) E-learning and Knowledge Technology. http://www.masie.com/masie/researchreports/e-learn0.pdf
6. Morgan Keegan & Co (June 2000). The engine of the knowledge economy http://www.masie.com/masie/researchreports/elearning0700nate2.pdf
7. Merrill Lynch & Co April, 1999). Distributed Learning: Building Schools Without Walls. http://www.e-commerce.research.ml.com/30209833.PDF

Association Reports

1. Commission on Technology and Adult Learning -ASTD, NGA (June 2001) A Vision of E-learning for America's workforce. http://www.nga.org/cda/files/elearningreport.pdf
2. ASTD Report http://www.masie.com/masie/researchreports/ASTD_Exec-Summ.pdf
3. Hodgins, H. W. (2000). Into the future. A vision paper. Commission on Technology & Adult Learning. American Society for Training & Development (ASTD) & National Governors' Association (NGA). http://www.internettime.com/itimegroup/astd_web/index.htm
4. Software & Information Industry Association (SIIA) (2001) Trends shaping the digital economy 2001 Summary http://www.TrendsReport.net/summary/summary.pdf

Research Question 1: What is the Purpose of E-Learning?

The analysis revealed six purposes among the 15 reports. The following table provides a description of the themes and their frequency.

Table 1. *Purpose*

No.	Themes	N =15	%	G	B	PA
1	Inform (help) investors about e-Learning opportunities	7	46.6		7	
2	Discuss learning, the workforce and the workplace	5	33.3	1	1	3
3	Inform policy makers, educators, employers, and the public about e-Learning	4	26.6	4		

4	Identify the key drivers/players of e-Learning	4	26.6		4	
5	Discuss the contribution of technology to learning and performance	4	26.6	1	2	1
6	Identify major trends and winning strategies	3	20		3	1

G- Government, B- Business, PA - Professional Association

Upon reviewing the reports, the most recurrent purpose was to inform investors about e-Learning opportunities. The seven business reports provided detailed descriptive business models to inform investors of the strengths and weaknesses of the e-Learning market. The second most recurrent purpose was on learning, workforce and workplace. Five reports provide an in-depth picture of the changing nature of the learning, the workforce and workplace and how eLearning positions itself in this change. Looking at informing policy makers, educators, employers and the public, this purpose was found in all the government reports. Overall, associations' reports looked at the workforce and workplace, while business dealt with the investment opportunities, and government paid more attention to the policy makers, educators, employers and the public at large. Concertedly, however, 'learning, workforce and workplace' and 'discuss the contribution of technology to learning' purposes were dealt with by government, business and professional associations.

Research Question 2: What are the Features of E-Learning?

The analysis revealed 9 major features of e-Learning among the 15 reports. The following table provides a description of the themes and their frequency.

Table 2 . *Features*

No.	Themes	N =15	%	G	B	PA
1	Anytime, anywhere	15	100	4	7	4
2	Cost effective	15	100	4	7	4
3	Reach global customers	15	100	4	7	4
4	Just-in-time access to needed knowledge	15	100	4	7	4
5	Personalization	15	100	4	7	4
6	Improved collaboration and interactivity	15	100	4	7	4
7	Addresses learner diversity	11	80	4	5	2
8	Learner-centered	9	60	4	3	2
9	Working and learning lines blur	7	46.6	1	4	2

G- Government, B- Business, PA - Professional Association

Of all the research questions, the most recurrent themes surfaced in question 2. Six features of e-Learning were identified in all 15 reports. This communicates that the government, business and professional associations see e-Learning being anytime, anywhere, cost effective, have a global reach, be just-in-time, allow personalization and improve collaboration and interactivity. All these descriptors tell of a vision on integrating technology into education and how learning and performance can be facilitated. Learner diversity, identified 11 times, was seen as a major breakthrough for e-Learning because of technology that could be used to support e-Learning. Learner diversity included but was not exclusive to learning styles, location, experience, skills, language and learning pace. Of the nine reports that identified the learner-centered feature, the government reports were unanimous while of the seven reports that cited the lines of working and learning disappearing, four of the seven business reports were unanimous on this issue.

Research Question 3: What are the Trends Affecting E-Learning?

The analysis revealed that 20 trends were recurrent in the 15 reports. The following table provides a description of the themes and their frequency.

Table 3 . *Trends*

No.	Themes	N =15	%	G	B	PA
1	Lifelong learning	15	100	4	7	4
2	Improvements in technology	15	100	4	7	4
3	Demand for high level skill workers	15	100	4	7	4
4	Pervasiveness of computers	15	100	4	7	4
5	Globalization	15	100	4	7	4
6	New technologies bring new way of learning	15	100	4	7	4
7	Technology will improve the quality of learning	15	100	4	7	4
8	A way of sustaining and maintaining the human capital in the knowledge economy	12	80	3	6	3
9	Innovative business models that can attract investment in the technology-based instructional materials and methods	10	66.6	1	7	2
10	Public and private partnerships will be a major requirement	9	60	3	4	2
11	e-Learning market is growing	9	60	1	7	1
12	A core educational experience	9	60	4	3	2
13	Shortening product development cycle	7	46.6		7	
14	Corporations the fastest to explore and adopt e-Learning at a large scale	4	26.6		4	
15	Corporations the fastest to explore and adopt e-Learning at a large scale	4	26.6		4	
16	e-Learning movement is strong in corporate learning	3	20		3	
17	Corporate universities are growing	3	20	1	1	1
18	Education is the only aspect of society least affected by technology	3	20	1	1	1
19	Accessibility to internet and e-Learning may not be as wide spread in disadvantaged areas	3	20	2		1
20	Branding of content	2	13.3		2	

G- Government, B- Business, PA - Professional Association

Seven trends appeared in all 15 reports. These trends all capitalize on technology, education, the human capital and the intertwined impact of these three. E-Learning was also identified in 12 reports as a mechanism for sustaining the growth of the intellectual capital while 10 reports cited the introduction of business models on e-Learning by investors. Along this topic the growth of the e-Learning market, the need for private and public partnerships and e-Learning becoming a core educational experience were mentioned in nine reports. That corporate universities are growing and that education has been the least affected by technology were cited by one report from each source. Overall, the trends show that e-Learning is moving forward and that the business as well as the education aspects holds promise.

Discussion and Conclusion

The content analysis of the 15 reports revealed basic but significant information. Though, the results from this study touches the tip of the e-Learning iceberg, it holds significance for many professionals researching or writing about e-Learning. In essence this basic study gives educators, researchers and developers from all institutions a quick glance into the recurrent themes of 1169 pages of e-Learning reports. Given that the study is in its first stage, the study provided a peripheral insight into the purpose, e-Learning features and trends of 15 reports. The second part of this study will focus on the economic, social, research and development, learning organization and futuristic case of e-

Learning as purported by the reports government, business, and professional associations. The last part of the study will compare U.S and European reports on their purpose, feature and trends.

From this part of the study, it can be concluded that the government, business and professional associations converge in many aspects of e-Learning. The integration of education and technology, though presently lagging behind other aspects of society, will get better as technology improves and leaders in private and public institutions create partnerships to integrate technology into their education programs to improve learning and performance. Learning and performance are outcomes of e-Learning that hold promise given the features of e-Learning. The learner will have control of the learning; a model that has been found to be the best in an online environment (Jonassen, 1992; Harasim, Hiltz, Teles, Turoff, 1996). The just-in-time, anywhere, anytime capabilities will be topped off by the opportunities for collaboration, interactivity and personalization. All reports purport an agreement that a paradigm shift in the way education is viewed and delivered has occurred. In essence the perceptions of learning have undergone radical change (Rosenberg, 2001).

Therefore, as business organizations discuss the growing markets of e-Learning and develop business models to attract investors, the government targets policy makers, educators, employers and the public at large, while professionals organizations mainly focus on the workforce and workplace, it is imperative that all three entities become aware of their convergences and divergences. As Banas and Emory, (1998) stated, "while there is a growing recognition of and attention to distance learning in higher education, its growing inclusion in academia significantly changes the educational environment and experience. These changes need to be acknowledged and discussed by all stakeholders". (p.5) This study opens the door to the second phase of this research which is getting the detail on how technology will bring a new way of learning, how technology will improve the quality of learning, how e-Learning will sustain and maintain the intellectual capital and address learner diversity. Addressing learner diversity is critical because as Cifuentes and Murphy (2000) related, "in order to strengthen bonds among the members of expanding learning communities, administrators, teachers, and students in learner-centered schools and universities must honor diversity and emphasize the similarities that foster unity". (p.17). Overall, the themes revealed that there is a large consensus on the what, where, why and how of e-Learning. The next phase of this study is to understand the social, economic, research and development, learning organization and the futuristic case of e-Learning.

Implications for HRD

The first implication of this study is for all HRD educators and researchers. With e-learning, a rapid, effective and less expensive form of training and development (Schutte, 1996, Magalhaes & Schiel, 1999; Karon, 2000), the study provides preliminary information that educators as well as researchers could use when writing grants, or conducting research on e-Learning. The findings are basic but help to build a foundation for e-Learning. The study also gives educators and researchers an insight into what the government, business and professional associations are saying about e-Learning.

The second implication of the study is for the HRD practitioners. This study gives practitioners a snap shot of the e-Learning features and trends to help anticipate the e-Learning scenario. Both features and trends are important when assessing the workplace and the workforce in its readiness for e-Learning. HRD practitioners need to know how these trends and features will modify their practice.

The third implication of this study is more research. This study though preliminary, in its findings, highlighted recurrent themes in purpose, features and trends across government, business and professional associations. Reports from academia were unexplored, a source that needs to be reviewed. Also, because of the newness of the topic, there are still many avenues to explore across government, business, education, and professional associations.

The last implication is for professionals directing government, business, academia, and professionals associations e-Learning efforts. This study's preliminary findings show that there is overlap in their purposes, features and trends. It is important that each stakeholder be cognizant of each other's efforts in realizing e-Learning promise.

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Integrating Feminist Research And Practice In The Field Of HRD

Laura L. Bierema
University of Georgia

Elizabeth Tisdell
National Louis University

Juanita Johnson-Bailey
University of Georgia

Julie Gedro
BellSouth Telecommunications, Inc.

This paper introduces frameworks for feminist research and practice in HRD with the goal of strengthening women's voices both in academia and practice. This paper defines feminism, describes feminist research, proposes strategies for feminist HRD research, and addresses the contradictions and challenges related to women in HRD.

Keywords: Women, Feminism, Feminist HRD

Human Resource Development is a rising discipline that is in the process of creating and validating knowledge. Little has been written about HRD research itself (Hixon and McClernon, 1999; Jacobs, 1990; Sleezer and Sleezer, 1997, 1998), and as a discipline, HRD has not especially concerned itself with issues of diversity, equality, power, heterosexism, discrimination, sexism, racism, or other issues of oppression in organizations. Bierema and Cseh (2002) analyzed over 600 AHRD Proceedings papers from 1996-2000 according to a feminist research framework and found that few studies recognize gender as a category of analysis. Based on their findings, they conclude that HRD research is paying insufficient attention to women's experience, asymmetrical power arrangements in organizations, and problems of racism and sexism. They also found that the field poorly advocates social justice and change to remedy structural inequality. Yet, oppression in organizations mirrors the same problems in society and deserves HRD's attention. HRD is not alone in its oversight of women. Governmental policies, business practices, and research agendas in many fields lag behind the pace of workplace diversification.

Creating new knowledge is of essential importance to both HRD practitioners and researchers. As an emerging field, HRD is in the process of defining itself as a discipline. Yet, voices are absent from the discourse, and there has been little critical assessment of the field. Now is the time to question the theoretical frameworks and practices defining the field before they become entrenched and simply serve to reinforce the patriarchal status quo. Contemporary HRD research and practice concentrates on corporate American, skews loyalties toward management, and reveres performance improvement above other results. HRD researchers must explore the assumptions underlying their research, consider the beneficiaries of research, reflect on areas yet unexplored, and question the value of HRD research according to its impact on theory, practice, organizations, communities, and employees. This paper endeavors to begin exploring these assumptions. This purpose of this paper is to make the case for feminist research in HRD, define feminism, describe feminist research, identify strategies for feminist research in HRD, and address the contradictions and challenges related to women in HRD

The Case for Feminist Research in HRD

Why should HRD be concerned with feminist issues? There are least four key reasons. First, HRD regards learning as a foundational philosophical, theoretical and practical component, and feminism and feminist research are concerned with the construction of knowledge. Second, upon careful examination of the priorities of HRD research and practice, it is clear and startling that many voices are missing from the discourse of knowledge creation in our field. In other words, the determination of research agendas, control of associations, editing of journals, direction of academic programs, and leadership in organizations tends to be in the hands of white males. Third, the field of HRD is in the process of defining itself and must entertain a wider range of critical perspectives than traditional theories of

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learning, performance and change. Finally, HRD should be concerned with feminism since promoting meaningful change and making a difference in the lives of individuals, organizations and communities is a strongly held value of both HRD and feminism. Feminist research and practice offer remedies and strategies to advance, improve and revise the field of HRD.

Feminism

Liberal feminism (Tong,1998) or generic feminism, posits that if women are given access and opportunity, then the hegemonic structures that have relegated women to second-class status will disappear. Emboldened by this perspective, twentieth century women fought to get the vote in the 1920s, procured legislation in the 1970s that produced Titles VII and IX and the Equal Pay Act, and flooded into the labor market and into professional schools in the 1970s and 1980s. While the landscape has improved in many ways, women currently earn only 71 cents for every $1 men earn. Women are neither proportionately represented in the *Fortune 500*, nor on the local, state, or federal levels of government. Is the Liberal Feminist mantra of "Access and Opportunity" outdated? Do the more revolutionary feminist perspectives (e.g. radical, post modernism, and global feminism) have suggestions for moving beyond legislation and affirmative action to an egalitarian playing field? What does it mean to have a feminist lens? Quite simply it means to look at the world from a woman's perspective honoring the common experiences and histories of women in the society. It does not mean excluding men or devaluing their contributions. Feminism is not a four-letter word. In other words, any research that uses a feminist lens is research that is informed on the current and former status of women in society. For example, doing feminist research on the workday of the average American woman who works outside of the home would require more than a survey of their activities or interviews with women about their goals and dreams. A feminist analysis would include in depth and comparative analysis of the current circumstances of women, and also examine such issues at the societal and historical levels.

There are many feminisms, including liberal, radical, psychoanalytic, Marxist, socialist, black feminist thought and other standpoint feminisms , multicultural, standpoint feminisms, and postmodern and poststructural feminism, to name some of the more typical demarcation lines, and all focus in some way on working to change the status and opportunities for women both in this country and all over the world (Nicholson, 1997; Tong, 1998). There is considerable overlap among these feminisms, but for our purposes here, these can broadly be conceptualized into individually focused feminist theories, structural and standpoint feminisms, and poststrucutral and postmodern feminisms.

Feminist Theories with an Individualistic Focus

Both liberal feminism and psychoanalytic feminism tend to have more of a focus on women as individuals, though liberal feminism deals with women collectively as a group. Liberal feminism has primarily been concerned with helping women gain access to the institutions and systems of privilege that men have always had access to, and on giving women as *individuals* equal rights and privileges to men. The focus is on equal opportunity for women in the current system the way that it is, particularly in regard to education and job opportunity. Essentially there is not a broad systemic critique of the structures of society in liberal feminism, but rather more of a focus on the rights of women as individuals, and helping women fit into the education or employment system the way that is. Liberal feminists seek only moderate changes to existing structures, and focus more on how the individual rights of women can be better protected in the workplace and in society in general. Psychoanalytic feminism tends to also have an individualistic focus but from a psychological perspective, and the fact that the system reproduces itself because gender socialization happens through both conscious but largely unconscious mechanisms (Chodorow, 1978). Thus, psychoanalytic feminists tend to try to deal with the roots of patriarchy (the domination of women by men) in people's unconscious, arguing that women (or men) cannot change unless they deal with the patriarchy in their unconscious. But the unit of analysis in these feminisms is the individual, and the individual rights of women as a group.

Structural and Standpoint Feminist Theories

Structural feminist theories, tend to focus more on the direct challenge of social structures that affect women's development and access to education and for paid work in the public workplace. The concern of radical feminism has been primarily with patriarchy as a form of structural oppression. Marxist and socialist feminists have challenged the notion of what counts as work and emphasize the fact that capitalism has relied on the unpaid and low pay work of women and subsistence laborers worldwide, and focus on ways the system can be challenged to

provide greater access to the world's resources. Similarly, standpoint feminisms are also structural feminist theories and focus on the needs of particular groups of women based on where they "stand" relative to the margins and centers of different cultures. Thus black feminist thought focuses more specifically of the needs of Black women (Hill Collins, 1998) from their perspective, and focus on challenging racism and patriarchy in the workplace and in society; lesbian feminists focus on the life experiences of lesbians, and challenging heterosexism and homophobia as structural systems. The units of analysis here are the social structures (race, gender, sexual orientation as social structures) that affect women's development.

Poststructural/Postmodern Feminist Theories

Poststructural and postmodern feminist theories build on the structural and standpoint feminist theories in that they focus on challenging power relations that are based on the social structures of race, gender, class, sexual orientation. But the unit of analysis is on *the connections between* the individual and these social structures, and how these social structures affect how individuals constructs knowledge and identity, as well as how structures affect access to the public workplace and education. Poststructural feminisms also emphasize the notion of constantly shifting identity, in light of the ways individuals and social groups both challenge and resist power relations based on social structures, and the ways they also unconsciously reproduce aspects of privilege and oppression based on race, gender, class, sexual orientation. In terms of the workplace, poststructuralists would examine WHO determines what counts as valuable workplace knowledge and the way to build on the ways of building and valuing knowledge and collaborative knowledge within and across race, gender, class lines.

Feminist Research

There are many types of feminism and just as many types of feminist research. Feminist research attempts to conduct examinations with a theoretical lens that is cognizant of the structural inequalities that frame the lives of women. A major tenet said to drive feminist research is the obligation to deliver "a critique of traditional concepts and structures that have marginalized women materially and psychologically, in the world and even in their souls" (Patai, 1991, p. 139). While the common ground of living in an androcentric world unties all women under the banner of gender oppression, denying the structural inequalities that privilege some over others serves to reproduce and reflect the hegemonic dragon we, as feminists, are trying to slay. Therefore, feminist research has tended to be ever mindful of issues of race, class, and sexual orientation.

Although feminist scholars in the sciences have made major contributions, such as medical profiling, and have also re-interpreted and developed theories that have been normed on female participants, most feminist research has been centered in the realm of the qualitative paradigm. Invariably, the responsibility, often internally imposed, falls on feminists to accurately and sensitively include, represent, and portray women. There is a weighty awareness that the lives of women are usually invisible and in most academic arenas ensconced in stereotype. Feminist scholars have attempted to free women subjects and participants from the banner of the "Other."

The concept of the "Other" in feminist research is principally based on Simone deBeauvoir's concept of the female as other to man's primary being (1968). In extrapolation, the term has come to mean the "different" when compared to the "norm." Other commonly dichotomized pairings occurring in the literature and in research are black/white, gay/straight, women of color/white women. In general, feminist researchers attempt to present the other, the woman, in ways that give power and voice to the "studied." Feminist researchers are therefore attempting to provide a critical and insightful corrective force to the stereotypical ideas implanted by the patriarchal and hegemonic weight of Western culture.

Such research goals are often problematized by the positionality of the researcher in relation to the positionality of the group members being studied, particularly when women are studying other women, whether they share similar or divergent backgrounds. Simply put, it matters whether the researcher stands as an outsider or an insider to the participant or group. In final analysis, reconciling power and positional statuses seems impossible. However, feminist researchers try to remain mindful that the powerful forces that structure our world exist in major systems that give essence to the hierarchy: the government, social organizations, communities, and family units. People are educated formally and informally in how to order the world based on their group fidelities or positions. Often we learn who to think about and how to behave towards others through what we read.

How do we as researchers who are also feminists change the fundamental ways in which we explore and in turn represent the world? How do we see and then represent the lives of those who are like and different from us? We are left asking these cyclical questions with responses that only spawn new questions. The research literature poses such questions but fails to answer them, leaving open the assumption that merely contemplating transformation is

sufficient and honorable. But neglecting to ask such questions is unconscionable, given the on-going dialogue that occurs in feminist scholarship between positionality and power. Merely discussing these problems, however, is insufficient, and the consistent re-examination of one's positionality, motives, and perspective become an essential task for the feminist researcher. Thus the feminist researcher carries certain competing inquiries into the each examination and attempts to balance voices, political agendas, and the societal hierarchies enveloping the process.

Feminist Research in HRD

Fundamentally, the purpose of feminist research is to conduct research *for women* rather than *about women* (Coyner, 1988-1989, p. 291). In other words, feminist researchers would likely be less interested in studying the paucity of women executives, than in unveiling learning strategies for all women that could help them disrupt oppressive patriarchal systems.

Feminist Research Themes

The first section of this paper offered definitions of feminism and feminist research. This section turns the research eye toward HRD itself and analyzes how the process might become more feminist, and in turn, more inclusive.

Worell and Etaugh (1994) synthesized feminist theory and research in psychology and other disciplines to identify six themes of research they regarded as feminist. Bierema and Cseh (2000) modified Worrell and Etaugh's 1996 categories to be more relevant to HRD research contexts. Each of these categories will be briefly defined. The first, "Challenges Traditional Scientific Inquiry" means that the researcher rejects the assumption of a truly objective science that is free from culture, history, or experience of the observer, and partners with the participants to ensure that they do not get manipulated in the research process. The second component, "Challenges the Category of 'Women'" strives to affirm women's strengths, resilience, and competence. This can be accomplished in HRD through discovering women's contributions to HRD research and history and by valuing women as a legitimate target of study rather than the "other" or deficient one. This aspect also discards the traditional notion of comparing women to a male norm and acknowledges that the category of "woman" is versatile and that there is no one such category that can possibly represent all women. The third category "Considers Asymmetrical Power Relationships" seeks empowerment of all girls and women. It distinguishes women's subordinate status in society as based on unequal power distribution instead of deficiencies and explores the influence of power on women's lives. This category considers differences among women as mediated by power differentials related to opportunities available based on color, social economic status, age, sexual orientation, etc., and studies interpersonal relationships within the context of patriarchal power arrangements. The fourth category "Recognizes Gender as an Essential Category of Analysis" identifies multiple conceptions of gender and diversity. This perspective also challenges the use of gender only as an independent variable that explains observed behavior. The fifth category "Attends to Language and the Power to 'Name'" by creating public awareness of hidden or unspoken phenomena such as sexual harassment, heterosexism, language rendering women invisible, or the private lives of women. The invisibility of these issues in both research and practice only serves to reinforce inequitable systems of power. The sixth and final category "Advocates Social Activism and Social Change" charges researchers to reconceptualize theories, methods, and goals to promote possible social change, reduce power asymmetries, and support gender justice. This aspect is also critical of how research knowledge is depicted and acknowledges that sometimes it oppresses rather than benefits women such as portraying them as diseased, deficient, or other.

The Process of Feminist Research in HRD

Now we turn to the process or "nuts and bolts" of conducting feminist research and address methodological issues. Eichler asks, "is there a feminist methodology?" and retorts, "it depends" (1999, p. 9). This section addresses feminist processes of formulating questions, designing research, identifying sample populations, and analyzing data.

Question Formulation. Research questions have traditionally been conceptualized without consideration of women (Fine, 1985; Lykes & Stewart, 1986; Unger, 1983). A quick reading of HRD research reveals an agenda driven by management interests focused primarily on learning and performance (Bierema & Cseh, 2000). Learning and performance are vitally important to HRD research, however, research question formulation often overlooks the impact of power, oppression, and organizational relationships on learning and performance. Asking new questions

is an important role in critiquing existent HRD research and in creating future studies (McHugh, Koeske, and Frieze, 1986). HRD researchers could benefit by asking questions about their questions such as, "How do we integrate multiple voices into HRD research?" "Who benefits from HRD research?" "How does research reproduce systems of oppression versus challenge them?" "What impact do omissions in research have on HRD theory and practice?"

Research Design. A wide variety of research designs is used in HRD, and there appears to be a balance in methodology between qualitative and quantitative approaches (Bierema & Cseh, 2000, 2002). Feminist research proposes expanding the methods and voices of knowledge creation. DeVault (1996) implores researchers to avoid favoring one philosophical research stance over the other and suggests that "feminists have made major contributions by finding concepts and practices that resist 'dualisms' and they urge resistance to the qualitative-quantitative division" (p. 31). Quoting Cannon, Higginbotham, and Laung, she points out that small scale projects may be more likely than quantitative studies to reproduce race and class biases of the discipline by including participants who are readily accessible to the researchers. She also advocates that "quantitative feminist work involves correcting gender and other cultural biases in standard procedure" (p. 31). Quantitative methods are customarily used in HRD research and researchers would improve knowledge about race and gender by heeding DeVault's advice. Qualitative research is also widely applied in HRD research, however, very few authors acknowledge their role as the researcher or are forthcoming about their biases.

Sample Populations. As in question formulation, HRD research is biased in sample selection. There tends to be an executive and managerial focus. As the hierarchical level increases, the population of women decreases. Thus, by virtue of selecting executive and managerial populations to study, women are excluded. This phenomenon is not surprising since executive and managerial groups posses organizational power, control resources, and stand to benefit from research. Women are absent in problem formulation, research design, data analysis and future implications (Bierema, 1997; Bierema & Cseh, 2000). Biased selection such as this serves to exclude women, minorities and employee groups with less power in organizations. It also prevents HRD researchers and practitioners from gaining a full understanding of the organizational context.

Data Analysis. Although HRD research populations regularly include women and minorities, data analysis often fails to address gender or oppressed status as an important unit of investigation. Further, the social and political contexts are often controlled or ignored in traditional research. Failure to capture richness, context, and multiple perspectives in analysis is another feminist criticism of social science research. The challenge for HRD researchers is to more comprehensively analyze data. This will promote learning about women, oppressed groups, and social context. HRD researchers also need to take their conclusions a step further when considering findings. How do the findings impact women and other oppressed groups? What are the implications for organizational or social change?

Contradictions and Challenges Related to Women in HRD Practice

There are many issues that confront feminists who practice HRD such as reconciling a feminist framework and values with masculine, patriarchal organizational culture. One of the ironies of the HRD field is that although management continues to be a profession for men, human resource workers tend to be women (Hughes, 2000; Ross, 1996: Townley, 1994). Further, although human resources workers tend to be women, often those with the most power in the field are men, and as a whole, the profession enjoys little organizational power with respect to other functions. Finally, it should not be assumed that women in HRD are automatically feminist, or concerned with women's issues, nor should men be excluded from the process. Indeed, men can both be feminists and engage in feminist research. Sadly, however, human resources practices sometimes function to perpetuate patriarchal systems of power.

A poignant example of the contradictions and challenges related to women in HRD practice is the case of lesbians in work context. A critical examination of the unique double-minority status of lesbians in the organizational setting easily establishes for the HRD practitioner to appreciate an obvious gap between the philosophical underpinning of HRD theory—which espouses learning, change, performance, and constant improvement for the lives and careers of all--and the status of lesbians in the organizational setting. Heterosexism is a worldview (McNaught, 1993, p. 48) and for most people, it is probably not even conscious. It is a mind-set based upon limited opportunity to experience diversity (McNaught, 1993). Heterosexism is not always a simple, benign, innocent posture. Rather, heterosexism is the belief that heterosexuality is actually *superior* to homosexuality and should be an enforceable social norm (Badgett, 1995). Lesbians, because they experience a double minority status in the world, are subject to even greater discrimination based on the intersection of gender and sexual orientation

(Fassinger, 1996). We must ask ourselves how HRD research affects women's ability to gain power and influence in both practice and research, and consider what we are willing to do to begin eroding the inequitable structures of research and practice. The feminist perspective is change-oriented, seeking to equalize power relations that often lead to oppression of various groups in society.

The feminist approach offers HRD, as a relatively new field, the opportunity to apply multiple, socially responsible approaches to increasing the knowledge base. The status of lesbians today in the corporate setting is not necessarily identical to what it was for heterosexual women, say, twenty years ago, but it is analogous and comparative. Invisibility and powerlessness are thematic consistencies amongst both populations and any kind of practice of empowering and integrating lesbians, who face the dual hurdle of gender and sexual orientation oppression, does not exist in HRD. Issues of lesbian representation, like other lesbian issues, have rarely addressed in scholarly literature as valid questions in their own right, to the great detriment of lesbian studies. As soon as the lesbian is lumped in—for better or for worse—with her male homosexual counterpart, the singularity of her experience tends to become obscured (Castle 1993, p. 12). Feminist practice offers a solution to the problem of lesbian powerlessness and invisibility in the corporate setting because of its predilection to not just identify and acknowledge assumptions about the way the world is, but to create space and conversation about how those assumptions (such as sexism and heterosexism) can and should be uprooted.

Although barely acknowledged, corporate cultures are bastions of heterosexism. Such work environments create unique challenges for lesbians and aptly illustrate some of the contradictions for feminists involved in HRD. Assimilating oneself into the ubiquitous heterosexual corporate culture, networking, and socializing within the organization are vital aspects of negotiating a corporate career. Sometimes, the strategies that gays use to fit into the heterosexist corporate environment handicap them, because those strategies often result in a gay person's being perceived to be aloof (Digh, 1999). Lesbians in particular face the conflict of integrating with the heterosexual community: Being a part of activities and making contacts important for career development, but being viewed as different from heterosexuals (Boatwright et al, 1996, p. 224). Thus, lesbians who work in corporate America walk a fine line in the corporate setting because of their double challenge. Gay women are slower than gay men, for example, to make their sexuality known because they differ not in one but in two important ways from straight male executives, who still tend to surround themselves with similar colleagues at the very top of the ladder (Swisher, 1996). Lesbians, therefore, working in corporate America constantly negotiate the multiplicity of variables (sexism, heterosexism, networking opportunities, and "fit" within the corporate culture) that can potentially detonate their careers. This negotiation process is arguably no different than the general experience of lesbian life in the larger society.

Lesbians represent arguably a perfect population for which to practice true HRD interventions based on feminist theory and practice because feminist theory and practice provide opportunity and even perhaps a requirement for the organization to embrace the "new knowledge" of which Larson & Freeman (1997) and Oakley (2000) refer, which result not only from their invisibility but also because of the power structure that their presence challenges. Lesbians differ not in just one, but in two ways from their straight male counterparts, which can doubly foil their chances of career ascent in an organizational setting. Nevertheless, lesbians present not just a significant problem by which feminist theory and practice can manifest in HRD intervention, but also they present significant opportunities because they unravel some of the very social constructions of knowledge in which they exist. For example, Fassinger (1995) has pointed out that, despite a number of vocational barriers that lesbian may face, there are also important facilitative aspects of lesbian identity related to career planning and choice. Most salient among these is that lesbians tend to demonstrate more nontraditional, androgynous gender roles than do heterosexual women (Browning, Reynolds, & Dworkin, 1991; Fassinger, 1996; Garnets & Kimmle, 1991, Hetherington & Orzek, 1989; Morgan & Brown, 1991).

Conclusion

The process of feminist research is similar to other approaches to research. It is distinct, however, in that it formulates questions that have the potential to create knowledge for and with women that improves their lives and status. Feminist research is designed with the understanding that it is a subjective process, impacted by both the positionality of the researcher and the researched. Feminist research embraces a wide range of research designs and traditions and is more concemed with the ability of research to contribute to lessening women's oppression than the particular method selected. Populations are selected to truly represent women, not just white, middle class women, but diverse women on the basis of race, age, sexual orientation, and social class. Data are analyzed to include women. Woman as a category is an important unit of investigation that is not just counted, but analyzed. Finally, the process of feminist research acknowledges the relationship between the researcher and the researched

This paper, made the case for feminist research in HRD, defined feminist research, described feminist research strategies in HRD and spoke to the challenges and contradictions inherent in a feminist HRD practice. HRD is an important and emerging field with a rich tradition of research. As researchers, we have a constant responsibility to critically evaluate our questions, methods, and findings. Practitioners have a responsibility to demand research that us useful in addressing the difficulties presented by work contexts plagued with racism, sexism, heterosexism and classism. All of us have an additional accountability to assess HRD research's impact on performance, learning, employee well-being, and social welfare. Is HRD research increasing opportunities for women and minorities in organizations, or is it decreasing them? Is the work of HRD impacting the environment in a positive fashion, or is it contributing to our worsening environmental and global crisis? Whose voice is being heard in the scholarly discourse? Are they predominantly white male? The point of this paper is not to ask the field to shift entirely to a feminist framework, but rather to make space for it. As the field of HRD emerges we have the opportunity to draw the picture that includes a variety of approaches, including feminist research. It is our hope that HRD researchers will make space for it.

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In Difficult Times: Influences of Attitudes and Expectations Towards Training and Redeployment Opportunities in a Hospital Retraction Programme

Sandra Watson
Napier University of Edinburgh, Scotland

Jeff Hyman
Glasgow Caledonian University, Scotland

This paper reports on research which explores reasons behind the low up take of training and redeployment opportunities in a three-year downsizing (retraction) programme in a National Health Service (NHS) mental health hospital. It examines the social-psychological effects on barriers and motivation to training and redeployment. It reports on a number of extrinsic and intrinsic factors that are inhibiting the movement of staff from the hospital.

Key Words: Motivation, Barriers, Training

Organisational change may be seen as a 'normal' consequence of survival and development in a rapidly changing world. In many situations this change can involve organisational downsizing. There has been a tendency to view the strategic decision on whether or not to downsize in a rather 'clinical' manner in terms of a 'rational' calculation of the benefits and costs to the organisation as a whole. Many organisations will implement a range of support mechanisms to ease the human side effects of this transition. While it is now commonplace to speak of the human costs of change (Deal & Kennedy, 1999), little attention has focused on the emotional impact of change nor on examining how the personal feelings and emotional consequences of downsizing impact on programmes designed to ease transitions.

The research is set in the context of a three-year downsizing (retraction) programme in a National Health Service (NHS) mental health hospital, which is resulting in a substantial reduction in staffing levels. Many staff are expected to re-skill, move to community work and/or move to another location, stimulating a range of personal reactions. In order to facilitate this transition, a number of training and development initiatives have been devised by management to prepare staff for alternative employment. The desired outcomes of these initiatives were to phase the dispersal of staff in line with ward closures and to minimise the impact of closure on staff by providing opportunities to retrain and/or move to alternative employment. However the number of staff utilising these facilities was very limited and the dispersal of staff was not meeting expected targets. This research explores reasons behind the low up take of training and redeployment opportunities.

Research Questions

The central research question involved exploring how and why employees respond to radical organisational shifts. The aim of this research was to identify behavioural influences impacting on take-up of training and alternative employment opportunities, in a downsizing context. Key contentions of this paper are that traditions of employment security will provoke negative responses to the retraction programme; uncertainty in the work environment will influence the uptake of training, development and redeployment opportunities, and staff may vary in their orientation toward alternative employment opportunities according to identifiable criteria (e.g. age, education, position).

The first proposition derives from two main conceptual areas; firstly, there has been recent debate about the nature of the "new psychological contract" which helps inform employee behaviour (Rousseau, 1994; Hiltrop, 1996). There is an assumption that under turbulent market conditions, the "old" psychological employment contract based on security and continuity cannot be sustained. In order to engage employee commitment, new dimensions (e.g. of "employability") to the contract need to be explored (See Herriot, 1992; Herriot et al, 1998). Until recently, the profile of a "good employer" centred on notions of job and income stability, security and advancement with seniority. In many respects, the UK public sector epitomised this characterisation (Millward et al, 2000). With changing and uncertain market conditions, the "good employer" concept has shifted to one that can best meet changing product market conditions through adaptable working conditions and employment flexibility, whilst employee orientations may be hypothesised to be located in traditions of security and long-term career progression.

The second related proposition derives from literature on emotional impacts of hospital closures (Maurier and Northcott, 2000; Doherty, 1998; Massey, 1991). These impacts may then be associated with the parallel concepts of

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motivation to train and *barriers* to training. In other words, rather than acting as a stimulus to action, the threat of imminent or protracted change serves as an inhibitor to action. Furthermore, structural factors such as age, social class, education and occupation have been identified as variables affecting learning (Maguire et al, 1993; Maguire and Fuller, 1995) and these factors underpin the third proposition of differential response paradigms.

Context

In 1990, the UK government introduced the Community Care Act, advocating the closure of large institutions for people with learning difficulties by providing residents with care and accommodation in the community. This case study is located in a large hospital, for individuals with learning difficulties, which is two years into a three year retraction programme. It is changing from being a large hospital with over 300 residents to a 26-bed unit. This process involves patients being relocated across Scotland, with major implications for retraining and redeployment of staff. Many staff at this hospital are long-serving, and the hospital itself was founded many years ago. The hospital is regarded as a significant presence as well as contributor to the local employment community. Further, many of the staff employed live in and around the local area. It is perhaps not surprising that there is a tangible (though currently fragile) sense of "community" among staff.

In order to ease this transition a range of training, development and redeployment initiatives were developed with the key objective of assisting staff to manage the transition from the hospital to community working or to alternative employment. The hospital has been awarded nearly £17m to support this retraction process. It has established a number of initiatives to assist staff to seek training and development or to offer alternative employment opportunities. These include:

- A monthly bulletin of redeployment opportunities from other hospitals and community care providers throughout Scotland. These are mainly in the area of community care and support services.
- A redeployment service, which enables staff to seek assistance with finding suitable alternative employment.
- A careers advisory service, designed to give advice on career alternatives and practical assistance.
- A training and development programme developed by management, provides opportunities for further training, secondments and educational opportunities.
- A resource pack detailing programmes and support available for further/ retraining and education opportunities, supplemented with a resource centre providing advice on assistance available for training and redeployment on an individual basis. This also gives details of alternative employment prospects.

Although a great deal of effort and resources have been allocated to try to ease the transition for staff, a substantial number of staff do not appear to be taking up opportunities for training, development or redeployment. This paper exposes and explores the behavioural issues underpinning the low uptake of opportunities.

Theoretical Framework

It is the conjecture of this paper that social-psychological factors derived from employee perceptions of fracture of the "old" psychological contract based on security and service will strongly influence the motivation to take up training, development and redeployment opportunities. The effects on staff of impending contraction or closure of an established workplace can be profound. Sennett (1998) presents evidence of profound emotional damage among a group of "downsized" programmers at IBM. One American study found that threatened job loss is accompanied by a number of transitional stages, involving disbelief, sense of betrayal, confusion, anger and ultimately, resolution (Schlossberg and Leibowitz, 1980). A later study of a hospital closure found that "all of the above stages were experienced by various staff members after the scheduled closure was announced. Everyone had to achieve resolution and accept imminent closure as a fact" (Domingue and Singleton, 1994,p.51). Expressed feelings were akin to those of unwanted divorce: "Losses were very personal and were intimately related to our self-esteem, self-worth and personal economic conditions. The situation was devastating" (Domingue and Singleton, 1994, p.53). A British study among psychiatric nurses found that, the impending loss resembled that of bereavement. Like the American case reported above, this study also found a reactional sequence among those affected: anticipatory grief; acute mourning stage in nurses physically distanced from the hospital; refusal to accept closure as "right"; and a strong identification with the old hospital (Massey, 1991). "Survivor" syndrome in health service restructuring exercises has also been identified in several studies (Maurier and Northcott, 2000; Massey, 1991), where individuals report a sense of guilt at remaining in the organisation. Studies by Massey (1993), confirm that: "the effects of run-down and closure on hospital staff are profound and far-reaching, and many nurses find the transition from hospital to community nurse very difficult indeed" (Massey, 1993, p.198). Feelings of "institutional loss" as Massey (1991) describes the syndrome, can be especially profound among long serving employees, working in a long-established environment. Motivation under these circumstances may be difficult to sustain but motivation is recognised in the

literature as an important contributor to training take-up and outcomes: yet surprisingly little attention has been given as to why training "works" for some individuals and not for others. However, recently some attention has been given to the influence of "emotions" on learning (Short, 2001). Arguably there is an integral link between motivation and emotions, with motivation being influenced by an individual's emotional state. On the basis of a number of research studies, it has been contended that "attitudes and expectations represent the most powerful barriers to the willingness to consider training" (Crowder and Pupynin, 1993, p.26).

Specific barriers to learning have been identified in the literature and these include motivation (Hand et al, 1994), itself derived from both intrinsic and extrinsic factors (Mumford, 1988), as well as structural factors such as age, social class, education and occupation (Maguire et al., 1993). Intrinsic barriers can be owned and erected by the learner and these are therefore factors over which they have control. On the other hand, extrinsic or environmental barriers are outwith the locus of their individual control. In this way, it follows that the variables that are present in relation to the intrinsic values can lead to diverse perceptions of the extrinsic factors. For example, the perceptions, motivations and emotions of one individual compared to another may dictate a different response to a physical or situational barrier according to his or her locus of control. Emotional barriers to learning are associated with individual insecurities, which may cause reluctance to take action in certain areas and hence hamper participation. Crowder and Pupynin (1993), using Rotter's (1966) definition, propose that 'individuals with an internal locus of control believe performance to be contingent on their own behaviour while individuals with an external locus of control believe that outcomes are beyond their personal control' Crowder and Pupynin (1993, p.19). Through their inter-action with attitudes and expectations for the future, the socio-psychological factors identified above represent an additional potential barrier to training. A key issue is the importance of individual motivation in learning (Hand et al, 1994). For some people there is a sense of inertia and/ or saliency of learning, where they do not perceive learning as a means of helping them out of their present situation, which influences their individual motivation to learn. Factors affecting individual commitment include motivation, awareness, flexibility, information and guidance available as well as perceived benefits from learning. Additionally, Maguire et al (1993) highlight barriers to learning as being funding, fear of loss of job security, and finding time to study.

Basically, therefore, staff are facing new and highly significant dimensions to their immediate (psychological) and contextual (public sector/hospital /community) employment conditions which in turn are likely to influence employee attitudes and behaviours toward retraining initiatives. In other words, the potential *social-psychological* effects of retraction may be profound and their influence on the overall uptake of training cannot be under-estimated.

Methodology

An interpretive research perspective is adopted, aligned to the social constructionist paradigm which assumes that individuals and their interactions subjectively create social reality which assumes an underlying pattern and order, or regulatory focus (McGoldrick, Stewart and Watson, 2002). The researchers are seeking to understand the emotions of staff and their subsequent response to training and redeployment initiatives within the particular social construct of a hospital retraction. No single method was appropriate to produce the rich texture required to explore the issues, therefore the following complementary quantitative and qualitative approaches founded upon a case-study methodology were adopted.

An initial survey was designed to assess the overall levels of awareness and satisfaction with the secondment and redeployment opportunities and retraining provision and take-up. Respondents were asked to indicate any suggestions for improvement if they were dissatisfied with any options for retraining. A total of 27 respondents (23%) offered some narrative response to this question. The self administered survey instrument was issued to all 411 employees; a response rate to the survey of 29% was achieved, which would conform with accepted response rates in internal postal surveys of this nature (Easterby-Smith et al, 1991). The data was analysed to identify if there were significant differences between different variables of category of staff, gender, age, education level and length of service. The results indicated that there were few differences. Differences which did emerge are presented in the discussion section of this paper. Of the 119 completed questionnaires, 18% were from men, and 82% from women. This is representative of the total sample, where the gender split is 20% male, 80% female. The mean age of staff was 37 years and nearly half (47%) of respondents were aged between 31-40 years. Mean length of service was 12 years, with 40% of staff having served between 11 and 20 years at the hospital. Nearly two-thirds (62%) of respondents were from nursing, a further 17% from support services and ten per cent from Professions Allied to Medicine (PAMs). The rest were from Administration and from Management.

The survey was complemented with a series of interviews on a purposive sample of staff. Four group interviews were conducted with samples of nursing personnel and support staff in order to identify the main obstacles and facilitators facing different groups of staff to retraining for employment elsewhere. These involved not more than

five staff in each group and provided opportunities for occupational groups to express their feelings about the programme and its effects upon them.

Individual semi-structured interviews were also conducted with eight management representatives, one union representative and one care leader (all serving on the Hospital Training and Development Group), to examine their views on staff responses to training and development opportunities. These interviews were recorded and transcripts of the interviews made. Phone interviews were conducted with a small sample of staff who had successfully transferred into alternative employment or taken up educational opportunities. In addition to these formal interviews, several informal interviews with hospital personnel were conducted in order to gain specific information or to clarify particular issues. Table 1 below provides details of the interview respondents.

Table 1. *Interview Respondents*

	No. respondents	Male	Female	Management
Phone interviews	5	2	3	-
Face-face interviews	10	4	6	8
Group interviews (4)	16	4	12	-

Research Findings

Responses to the Retraction Programme

Behavioural responses to the retraction programme as identified through individual and group interviews can be identified under the following headings.

Stress and Sickness. Stress and sickness among staff was very apparent. In the words of one respondent: "*The sickness rate is going through the roof*". Even if on paper a service was adequately staffed, in practice cover was constantly being sought and: "*Nobody seems to listen to that. It's so frustrating... A lot of my time is spent in long-term sick interviews*". Concern was also expressed about the psychological effects of the retraction programme. The support group of staff reported that many of their colleagues felt that they were taking their stress home to their families. According to one interview group, sickness and absence rates were now at an all-time high, a situation predicted to get worse until the final closure. One nurse stated that: '*Staff are still living on their nerves.*" A manager queried whether the extent of stress among fellow managers was recognised, especially as there had been a number of stress and health related problems among this group.

Morale and Motivation. Morale among all the interview groups was also at a very low level. One group reported that although they knew that closure was inevitable, they felt an overwhelming sense of powerlessness. Attempts at involving them in the decision-making process were treated with scorn, as these were viewed as "cosmetic democracy". Another nurse group considered that their lack of input had left them feeling demoralised. Staff powerlessness was exacerbated as the groups felt that their opinions and concerns were either being ignored or not fully addressed. Further "blows" to morale were continually anticipated through the uncertainty inherent in their situation: "*What we want to know is – do we have a job? How long do we have it?*" The difficult situation was summed up by one nurse: "*I used to love my work, but now I don't do things like coming in early*".

Low morale was also affected by staffing problems as nurses struggled to maintain high standards of patient care, this being a highly sensitive issue which emerged at several points during the group interviews. Study days had been reduced, study leave requests declined and courses cancelled, which meant that nurses became concerned about skills erosion at precisely the time when they wished to update and develop their skills. Conversely, low morale was linked directly with low motivation for taking up various retraining and redeployment opportunities, which were reluctantly pursued under pressure, rather than through individual choice. Another group pointed out that fear of the unknown was a strong inhibitor to many people moving on. The support staff group expressed the view that they had no motivation to make use of any of the retraining and redeployment opportunities. As with the staff interview groups, there was clear understanding among the managerial respondents that morale and motivation were intervening factors in staff behaviour.

Stereotyping and Self-esteem. The three nurse groups expressed concern that working for the hospital had pigeon-holed or negatively stereotyped them in the minds of prospective employers, thereby reducing job opportunities. Some interviewees said that this made them feel almost unemployable ("institutionalised"), although

they knew that they had accumulated valuable skills over their service period with the hospital. This issue was also mentioned by several management respondents: "*Learning disabilities is very much a second class citizen as far as certificates go. We are not accepted as 'real' nurses*". However, some management respondents were critical of staff attitudes: "*some are not interested in taking opportunities, they are sitting back, possibly due to their age*". Age as a factor was also referred to by another manager: "*Probably a quarter to a third will not move. They are too old to train and they are not interested. Anyone over 45 shows little interest. The most active are lower than 42.*"

Locus of Control. One of the findings was a propensity of respondents across all groups to have an external locus of control in that individual shortcomings were attributable to changing organisational and environmental factors beyond the reach of staff. These factors in turn were eroding existing relationships at the workplace. The nature of the hospital, in which long serving patients and staff had enjoyed a strong sense of community had changed and all the interview groups felt that the sense of community was rapidly dissipating: "*This was a great place at one time, but they've wasted it*". In contrast, a common thread joining all the respondents who had been successful in finding alternative employment was their conviction that their success was primarily as a result of their individual effort and perseverance.

Denial. Denial in one form or another was frequently cited by managers as an obstacle: "*There is a significant number of staff who do not appear to have absorbed the implications of the closure, and would prefer not to believe that major change is underway*". Others believed that facing the reality of the managerial narrative of change might only occur when appointments are made to the permanent 26-bedded unit. People who are not offered a job will be forced to face the inevitable. Another manager pointed out that the pace and extent of staff acceptance will grow as closure grows closer. Another respondent considered that "*a lot of people are putting their heads in the sand*" whilst others referred to the "*comfort zone*" of familiarity that many are loathe to risk leaving: "*It's opened up a whole new world of insecurities for them*". Fear constitutes an additional factor, especially for older and long-serving staff: "*A lot of them are so fed up and demoralised, that they just don't know where to turn*"

The potentially devastating effects on staff are recognised by management: "*..to recognise how it must feel for somebody who has worked in a location for 30 years, has cared for ...patients for that period of time ... It is like giving your children up for adoption but you don't actually want to give them up. You don't know where they are going.. you are never going to see them again and you don't actually feel that they are going to a better home ... you have been told to do it and that is quite a hard thing for people to come to terms with.. I think that this is actually overlooked and we don't spend enough time and energy on understanding that. And it's just because we don't have the people, resources or the time to do it* ".

Opportunities for Redeployment and Retraining

The attitudes and responses of staff towards "opportunities" provided by the retraction programme were uniformly negative. To examine the extent to which these reactions were independent of recognition or access to the various programmes offered to staff and their perceived value, the study attempted to identify levels of awareness, utility and perceptions of support offered.

Awareness. Survey respondents were first asked to nominate their degree of awareness of training initiatives. The findings indicate that the majority of staff were aware of the principal initiatives available to them. This is especially the case for the high proportions of staff either very aware (33%) or aware (62%) of the Redeployment Bulletin. The survey asked respondents whether they were aware of different retraining opportunities offered within the hospital. 81% were aware of the provision for vocational qualifications, 79% for "Return to Learn", and 84% for secondments. Individualised training opportunities were known by 61% of staff, demonstrating that levels of *awareness* were reasonably high.

Utility and Availability. Whilst the majority of respondents replied that the initiatives are useful or even very useful, an appreciable minority replied that the initiatives were "of no use". Again, the Redeployment Bulletin tends to secure the highest levels of utility. The resource pack and redeployment bulletin were not regarded as especially relevant by any of the redeployed respondents, being seen as too general and not sufficiently focused on specific skills. The Resource Centre was mentioned by some respondents as being useful, for example, for computer training. The respondents who had successfully been redeployed were of the overall opinion that information provision regarding training and redeployment options were effective, although there was criticism of specific informational instruments and of the limited role played by the hospital in helping staff to secure alternative employment or retraining.

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Substantial levels of criticism with regard to redeployment were expressed by all the interview groups. One problem was skills matching, in that vacancies circulated in the Redeployment Bulletin failed to meet staff needs. Both the bulletin and questionnaire were seen as unhelpful in this regard. From the questionnaire there were concerns that no systematic attempt at targeting or skills matching had been made. This matching problem between staff skills and vacancies, especially with regard to qualified staff, who work in a very specialised area was also a common management concern: *"The opportunities coming through will not reflect their skills, but, "there is nothing we can do about it"*. Other comments were more favourable: "... *Everyone filled in a preference exercise questionnaire and any jobs or secondments are matched up to what individuals had put in these forms – they're targeted"*.

Organisational Culture/ Support. There were a number of organisational culture issues identified from the research, in relation to notions of support and sense of community. Many individuals perceived problems with level and appropriateness of opportunities. An interviewee who gained employment following a secondment claimed that she set up this opportunity on her own, "*without any support from the hospital*". A second interviewee secured their position by applying for a job she had seen advertised in a newspaper, claiming that her success was "down to luck", rather than the help given by the hospital. She also claimed that there were obstacles: that it was difficult to get time off to take up training opportunities and make use of facilities such as the resource centre or careers advisory service. This point was echoed by a third respondent who also did not feel very supported by hospital. She also took the view that securing alternative employment was very much due to individual effort and initiative. Conversely, two respondents who were redeployed were complimentary of the hospital support. One related that he was transported to the potential employer, offered a three month trial without obligation and the opportunity to return to the hospital if the post proved unsuitable. The second secured his position through the redeployment questionnaire, allowing him to be targeted for the vacancy.

Accessibility. When asked whether respondents were *satisfied* with opportunities for retraining and redeployment, a majority of those aware replied affirmatively, suggesting that overall there is a reasonable level of satisfaction. However, the perceived effects of accumulating staff reductions on secondments were having a widespread influence on accessibility to opportunities, according to a number of survey respondents. A Registered Nurse pointed out that she had: *"Twice applied for vocational training and was unsuccessful on both occasions as there were no staff in my present ward interested... I don't think this is acceptable in a retracting hospital.. "*

One effect of staff resource constraints, according to a few respondents, has been the cancellation of courses, which can impact negatively on morale. When asked the reasons why one nursing group experienced no great motivational surge to take up retraining opportunities, one nurse pointed out that: "*When you approach them (ward management) they tell you can't be released*". The rest of this group confirmed that this is a major problem, leading to a considerable amount of dissatisfaction and false hope. Management also identified shortages of staff adversely affecting retraining and redeployment opportunities: "*Releasing staff to allow them to take up training has been a consistent problem and difficulty*". Staff shortages present a significant barrier to taking up training and development opportunities: "*people had an awful time trying to get study time*". Another manager pointed out that shortages may deter staff from taking up opportunities due to them putting patients first *"The staff member may see a shortage of nurses and decide that they will not add to the problem, as they feel the patients will suffer."*

One nursing assistant pointed out that: *"Secondments – there is no staff so people can't get release for secondments."* One concern expressed by a number of groups was that taking a secondment could jeopardise a return to employment: "*They say your job's safe, but people are not convinced*". The group claimed that little support, help or guidance was offered to staff seeking secondments, even to the point of staff organising their own secondments. Chronic (and growing) staffing shortages were also felt to hinder the release of staff. The choice of secondments was also stated to be limited by the nurse groups, not giving staff the opportunity to sample alternative careers. The support staff were unhappy that a secondment on alternative employment was for three months with no room for flexibility, if it is unsuitable.

Discussion

Our original assumption was that there may be distinctive patterns between groups, based on occupation, education or qualifications. However, the survey and interview findings found very little distinction in responses according to these variables. All groups cited the devastating effects of closure upon staff. These effects apply to staff from across the age range and with a range of occupational backgrounds, qualifications and service records. Notwithstanding these uniformities, there were some identified differences: long service staff in the older age range were not surprisingly concerned about their immediate financial situation and responded less positively to retraining and redeployment opportunities. Successful transferees indicated age and length of service as relevant factors in

respondent willingness to seek alternative employment, coupled with the view that few older staff (in support services) were mobile in terms of car ownership.

There are advantages and disadvantages of an extended closure programme. On one hand staff have time to adjust in a number of ways to a radically changed situation: conversely, the protracted "slow death" may demotivate staff especially when resources tighten and opportunities for transfer become fewer and less accessible. Many of the symptoms reported in the literature review on hospital closures have been found in this study. Refusal to accept that closure is right or morally legitimate (Massey, 1991) was demonstrated through concerns raised regarding the welfare of patients and the impending loss of community. At present a number of staff, some who have had close contact with patients over a number of years, feel that patient care is being compromised by the retraction. It is believed among some staff that this is an issue that management are either not aware of or refuse to consider.

Current levels of uncertainty concerning future employment opportunities were rife across all groups which for some is providing a (perhaps unconsciously) justification for inaction, which can be seen to be similar to Schlossberg and Leibowitz's (1980) "confusion" stage. There were also persistent comments that many of the staff were continuing in their current employment in expectation of generous severance or early retirement packages. An identified obstacle to staff movement is the reluctance of some (especially with long service records) to forfeit potential redundancy money if they move to employment out with the health service.

Respondents *believe* that negative stereo-typing of hospital staff outside the trusts might constrain employment opportunities and is impacting on self-worth and self -esteem (Dominigue and Singleton, 1994). Evidence from successful transferees suggests that this may be an internalised self-image rather than a genuine significant constraint.

The literature identifies a number of stages in the "institutional loss" process. These stages involve disbelief and denial, feelings of betrayal, confusion and anger prior to arrival at resolution (Schlossberg and Leibowitz's, 1980). The findings indicate that with respondents, there still persist an amalgam of largely negative emotions concerning the closure and for many the stage of resolution has yet to be attained. This is despite the varied and extended efforts of management to inform and consult with staff. Arguably, resolution will only come when staff know what their likely outcomes will be in terms of continued employment, severance packages and early retirement terms. Over one-third of respondents claimed not to have been informed at all about future provision and three-quarters not to have been consulted over this critical issue.

Staff shortages, coupled with reportedly growing levels of absence and sickness, were compromising efforts to redeploy and retrain staff. Many respondents were not actively pursuing training or employment opportunities, for any of a combination of the reasons outlined above.

In addition, the availability and utility of specific information and devices were questioned. This is resulting in staff being disinclined to use many of these facilities. Although there were no real criticisms of secondments and training conceptually, staff identified a number of practical or operating constraints acting against their effectiveness, including inadequate resources, especially staff shortages, and insufficient contact and support.

The most intractable factor, from which a number of sub-factors extend, concerns the morale of staff and their motivation to take positive steps to withdraw from the hospital. Evidence from diverse sources confirms that morale and motivation of staff are at low levels. The old psychological contract based on security and continuity still resonates for many staff whose careers and lives are integrally mixed both with the hospital and their local community. Both these life-enhancing symbols are in a state of fracture as a consequence of the retraction.

Success in securing alternative employment appears to be positively related to personal initiative in seeking and pursuing opportunities, displaying an internal locus of control (Crodwer and Pupyin,1993). All these respondents considered that they had been successful primarily through their own efforts, and whilst the hospital may provide channels for matching or retraining, these will be of little use without the initiative and effort of individuals.

The group interviews confirm a number of the issues raised in the survey. Whether the negative aspects identified above through the staff interviews were completely accurate reflections of the situation or not are in some ways irrelevant. People's behaviour will be related to their *perceptions* of situations and it is clear from our findings that these perceptions were affecting staff orientations towards the retraction programme. Whilst there is evidence of convergence of views between staff and management respondents, there are signs of a gap in perceptions, especially over the extent to which staff should take responsibility for their own advancement or should be guided and assisted by the hospital. As one manager put it: "We *have 150 qualified nurses, but there aren't going to be 150 posts for learning disabilities nurses either in the community or the hospital. People have to get that through their heads and realise they're going to have to think about transferable skills"* Other managers offered similar dependency culture views along the lines of: *"People have to focus on what they are going to do for themselves"* and: *"Some people are quite innovative in what they are doing, others want to be spoon fed.. the Trust has a responsibility to do that, but I think there's an onus on them as well"*.

Conclusions

The study has demonstrated that even with a well-resourced programme with which employees are familiar and to which they are generally positively inclined and exercised with obvious goodwill by senior staff, the management of a major retraction programme confronts significant barriers. Prime among these are the social-psychological orientations of staff especially when pressures extend over a protracted period of time. There does appear to be individual characteristics, centred on the concept of 'locus of control' which are important in helping to determine staff outcomes. Whilst it is impossible to discern the reasons why some individuals display more of these qualities than others at any one time, or whether these are inherent or learned, the hospital is attempting to activate these individual characteristics among its staff. This is important as our evidence indicates that staff who do pursue alternative opportunities tend to be successful, at the very least, in obtaining interviews. One of the key issues to emerge from this study is the importance of understanding the profound emotional influences of closure/retraction on individuals. It would appear that a structured perspective was taken to the implementation of support mechanisms, with less attention being paid to confronting the devastating emotional consequences of their well-intentioned programme. This unintentional neglect is resulting in incomplete realisation of the programme.

This research makes a contribution to HRD in a number of ways. First, the findings from this case study can be used to inform other HRD directors in the health services sector who are likely to face or to implement retraction. Second, it adds to the literature on barriers and motivation to learning, by taking a focus on provision of training and development in a traumatic context, providing scope to develop our understanding of the emotional dimensions of motivation. It can also make a contribution to the work on barriers and facilitators to organisational change, through identifying key emotional intrinsic orientations of staff potentially affected by change.

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A Qualitative Study of Nonexempt Employees: Careers or Jobs?

Kimberly S. McDonald
Linda M. Hite
Brad Gilbreath
Indiana University-Purdue University Fort Wayne

This qualitative exploratory study investigated career development activities, concerns, and needs of nonexempt employees. The study focused on work and career satisfaction and the potential role of career development activities. Results revealed a continuum of needs and interests regarding career development and reinforced the importance of further research on this key population. Nonexempt employees are the lifeblood of organizational output. Therefore HRD practitioners are urged to devote more attention to the career development of these often-overlooked employees

Key words: Nonexempt Employees, Career Development, Human Resource Development

Despite apparent similarities in subject matter between human resource development and traditional career development theory, there has been little crossover in research or in practice (Boudreaux, 2001). Typically, much of the research that has been conducted regarding career theory has focused on career choice, developmental stages, and environmental influences; while the majority of career development studies in HRD have concentrated on the career progression of those in managerial and/or professional positions (Allred, Snow, & Miles, 1996; Wentling, 1996) or on early career goals and aspirations.

There are some similarities between the work of career theorists and HRD researchers. Both, for example, have begun to explore gender differences in careers, which has led to recognition of the influence of family responsibilities on career choices and progress. However, few studies in either field have focused on the career development of blue-collar and nonexempt employees (DeSimone, Werner, & Harris, 2002) and even fewer have examined the impact of HRD initiatives on these individuals' careers. The purpose of this study is to explore how nonexempt employees perceive their careers and how HRD/CD initiatives may influence their careers.

The lack of attention to the career concerns and needs of nonexempt employees is puzzling. Nonexempts comprise more than half of the workforce for many organizations. Moreover, they often produce the organization's products or provide its services, making them the closest link to the customer base. Traditionally, managerial talent, particularly at the highest levels of the organization, has been viewed as the most valuable human resource, and therefore the focus of most HRD initiatives. More recently, however, a competitive global marketplace and changing economic conditions require organizations to attract and retain the best employees at all levels. Front-line employees increasingly are asked to take on more responsibilities to ensure product and service quality, efficiency, and innovation. As a result, organizations are beginning to recognize the nonexempt workforce as a potential source of competitive advantage. Leibowitz, Feldman, and Mosley (1992) reinforced this thought when they wrote: "In an era when 'working smart,' flexibility, and efficiency are prized characteristics of any workforce (blue-collar or white-collar, manufacturing or service), organizations cannot afford not to examine more closely the career development needs of their nonsalaried workers" (p. 334).

As compelling as the argument is that organizations need their nonexempt workers for economic success, an equally important consideration involves reciprocity and fairness. For example, Wooten and Cobb (1999) argue for integration of organizational justice literature into career development theory and research. They write:

> By its very nature, CD involves basic issues of fairness over the allocation of CD resources, the policies and procedures used to decide who receives them, and the interactions between those who provide and those who not only receive CD rewards but also experience its losses (p. 173).

Clearly, nonexempt employees are stakeholders in their organizations, as are their exempt and managerial associates, yet they typically have fewer opportunities for enhancing their skills in current positions or for career development. The paucity of substantive research on this segment of employees suggests that they have been ignored or overlooked in most HRD efforts. Respondents to a survey conducted by the American Society for Training and Development indicated that only 36% of hourly employees were covered by their organizations' career development systems (Gutteridge, Leibowitz, & Shore, 1993). Leibowitz, Feldman, and Mosley (1992) wrote:

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> In these fast-paced times it is not difficult to find organizational career development programs that address the increasingly varied career needs of executives, managers, technical and administrative professional employees . . . The same cannot be said, however, of the nonexempt population in many organizations. . . These employees' career development concerns have not typically been the focus of intensive examination by HR professionals; indeed, the tacit assumption in many organizations appears to be that this population has no significant long-term aspirations that need to be addressed by the organization's career development staff (p. 324).

Thomas (1989) concurred that this population has been neglected by organizations and suggested "few organizations subscribe in practice to the idea that low-level, non-supervisory employees have or even want careers" (p. 354). However he believed organizations should be concerned with "blue-collar careers" because these workers do "accumulate skills . . . over time and are concerned about the meaning of their work experiences" (p. 355).

HRD professionals are in a position to advocate for increased emphasis on the development needs of nonexempt employees. However, they need more information to draw from if they are realistically to consider investing HRD resources into the large and varied group that are categorized as nonexempts. One goal of this study is to add to the small body of knowledge currently available.

Theoretical Framework

To more clearly understand the careers of nonexempt employees, it is important to look at their job expectations. Only a few studies have examined what blue-collar or nonexempt employees want from their jobs. Loscocco (1990) found that both blue-collar women and men ranked job security and good pay as the most important of eight job characteristics. HR professionals have indicated that strong work relationships positively influence job satisfaction for nonexempt employees (Leibowitz, et al., 1992). These HR professionals also perceived many nonexempts as being frustrated with their careers – citing issues such as perceived lack of mobility, lack of knowledge regarding ways to improve their careers, and the inability to think about career options. However, it is important to note that the Leibowitz et al. study represented the view of HR practitioners rather than direct reports from nonexempt employees.

Several studies have suggested that HRD initiatives can assist employees in their career development. For example, managerial men and women frequently cite the importance of mentors to their career advancement (Gordon & Whelan, 1998; Ragins, Townsend, & Mattis, 1998; Wentling, 1996). Tharenou, Latimer, and Conroy (1994) found that training opportunities led to promotions. Informal learning opportunities such as "stretch assignments" or overseas experiences also have assisted managerial men and women to advance in organizations.

However, little is known about the impact of HRD interventions on nonexempt employees. In their study of women employed in trades, Greene and Stitt-Gohdes (1997) noted that "formal career education and/or counseling was not a factor in participants' decisions to choose the trades" (p. 274). Hite and McDonald (2001) found few HRD initiatives cited by women in front-line positions as assisting them in their careers. Olesen (1999) indicated that employees who move from blue to white-collar positions typically do not receive training about adapting to their new cultures.

Both Green and Stitt-Gohdes' (1997) and Hite and McDonald's (2001) studies were qualitative in design, grounded in emergent data. Jerich (2000) conducted a quantitative study assessing the professional development needs of secretarial employees at a large university. These employees indicated a need to develop business and budgetary skills to advance in their careers as well as a need to continually update their computer and technology knowledge and skills. Additionally, these secretarial employees cited time as the greatest barrier to their professional development. While this study focused on perceived needs and barriers to professional development, it did not examine the impact these interventions might have on secretarial employees' careers.

Case studies of successful career development programs for nonexempts suggest that the programs have been successful. For example, Russell (1984) reported that evaluation data regarding Lockheed's career development program indicated improvement in work quality and quantity, morale, and communication with managers and co-workers. Leibowitz, et al. (1992) cited data from an employee survey indicating improvement in the career planning process to argue for the effectiveness of Corning's career development program for nonexempts. However, both of these reports provide anecdotal information and report the data from HR's perspective.

Situated within the larger context of HRD research and practice, our study is an attempt to contribute to a better understanding of how white-collar dominated views of careers mesh with the experiences of nonexempt employees. We hope to identify ways the HRD community can better serve the needs of nonexempt employees and the organizations employing them. Thus our study is an initial step in answering a fundamental and important question:

How can HRD practitioners better meet the developmental needs of the nonexempt workforce?

Research Questions

This study explored the career experiences of men and women in nonexempt positions. The lack of established scholarship on nonexempt employees led us to other sources of inquiry. As a result, the questions developed were based on a review of the few studies that have targeted non-managerial employees as well as extrapolation from research on those in management positions. The questions posed were focused on what nonexempts want from their work and what activities have helped them in their careers. The term "career" used in the questions was defined to the participants as referring to paid or unpaid work. The following questions were addressed:

- What is important to you in your work?
- Looking back over the jobs you have had, are you satisfied with where you are now? Why or why not?
- What activities have you participated in to help in your current or future work?
- What has been the effect of these activities on your current work experience or your plans for future work?
- What additional activities would be most helpful for your career?

Methodology

We employed focus group discussions to gather data related to nonexempt employees' career development. Limited research data in this area necessitated a qualitative approach. Focus group methodology is recommended when the study is exploratory and when "factors related to complex behavior or motivation" are being examined (Krueger, 1994, pp. 44-45). We wanted to obtain data that "emerges from the group" (Krueger, p. 45), rather than imposing our own frame of reference on the data. Focus group discussions provide a forum where subjects can interact with one another in a non-threatening and candid manner (Lederman, 1990).

Human resource representatives from three organizations solicited volunteers to participate in this project, with the only parameter being that the potential participants be nonexempt employees. Three focus groups involved men and women employed in a large financial company, two consisted of employees in a mid-size manufacturing company, and the final group was nonexempt employees of a state university.

Each focus group began with a brief overview of the purpose of the discussion and our definition of careers. The five major questions listed above were presented. Each focus group lasted for 1-1½ hours. Company representatives set these time constraints, which may be a limitation of the study. However, there was sufficient time to obtain responses from all participants regarding each question, and we began to hear redundancies in responses by the end of each focus group discussion.

Brotherson and Goldstein (1992) recommend using multiple researchers as a "form of triangulation" when using focus group methodology (p. 337). Therefore, at least two researchers were present at each focus group discussion. One researcher served as moderator, while the other took notes. Throughout the discussion, both the moderator and note taker verified participant responses using clarifying questions, additional probes and paraphrasing. Additionally, the note taker summarized the responses for each question before the facilitator proceeded with the next query (Krueger, 1993). Participants were instructed to clarify or correct any misinterpretations. Immediately following each discussion, a debriefing between the moderator and note taker took place to discuss "first impressions" and to compare and "contrast findings from earlier focus groups" (Krueger, 1994, p. 128). The discussions were tape recorded for review and preparation of complete transcriptions. Each researcher analyzed the transcripts independently to determine patterns emerging from the six groups. We used the constant comparative method (Merriam, 1998), comparing comments within and between focus groups to develop tentative categories. The researchers then shared their observations and findings.

Demographics

Each focus group in this study had 6-10 participants, for a combined total of 49. Within the 49, we had a small amount of racioethnic diversity: 14% of participants self-identified as black, 80% as white, and 6% did not respond. The total group included 33 women and 16 men. Not surprisingly, the financial institution had more female representation, and the manufacturing company included more males.

Participant ages ranged from 18-62, with nearly half (49%) in the 31-50 range, 27% under 30 years of age, and 22% at 51 or older (2% did not respond). Over 60% of our participants had been with their companies for ten years or fewer. At the other end of the spectrum, approximately 10% indicated employment of over twenty years.

A query about educational background indicated that 37% had completed high school or a GED. Nearly equal numbers had completed post high school education (22%) or associate degrees (24%). Fourteen percent held bachelor's degrees.

At the end of each focus group session, participants were asked to respond in writing to brief statement sets about careers and career planning. The percentage of participants responding is listed to the left of each statement. The first set inquired about how (or if) the current job fits into a career plan:

27% I have a job, but I don't think of it as a career

29% I am in this job for now, but I have other plans for my career

43% This job is part of a career path I have chosen to follow

1% No response

The second set of items asked how much thought respondents had given to careers:

22% I have not done much thinking about my career direction and plans

78% I have done a lot of thinking about my career direction and plans

A rough correlation can be made between these two groups of questions, noting that 72% of the participants think in terms of a career plan when considering their current jobs and 78% report having given thought to career direction. These results are particularly interesting in light of assumptions often made about nonexempt employees' lack of career awareness.

Results

It is clear from our interviews that psychologically enriching work is important to many nonexempt employees. Important factors mentioned were: knowing one has done a good job, gaining a feeling of accomplishment, being appreciated, as well as having challenge and task variety. Not surprisingly, nonexempts often mentioned income and security as being important. They noted the importance of having a job that permits taking care of self and family, offers good benefits, and provides job security.

The respondents told us that liking your work and enjoying co-workers is important, as is having fun and working in a positive social environment. These values are not new among the workforce, as indicated by Kornhauser (1965), who found that many employees regarded good personal relations with their co-workers as a principal source of pleasure at work.

Issues related to job control were raised by several respondents, as in being empowered and having input and autonomy. Other factors included meeting performance standards, quality, and doing one's best. Some stressed the importance of teamwork.

If one were to categorize what was important to nonexempts, three themes seemed relevant: the work itself, climate issues, and security/compensation/benefits. The work-itself category encompassed factors such as challenge, accomplishment, variety, and autonomy. The climate category encompassed relationship issues, being appreciated, knowing expectations, social support, and having input. And the security-compensation-benefits category encompassed factors such as job security, benefits, good pay, and flexible work schedules.

Satisfaction

We asked participants if, in view of their past work, they were satisfied with their current positions. Our intent in posing this question was to discern if respondents had set and met personal work-life-related goals, and if not, what hindered them. For the most part, however, the responses did not follow that line of thought, but were more literal. Only a few mentioned career aspirations or goals when responding to this query. Respondents did however reveal a great deal of individuality in their interpretations of "satisfaction." For some, levels of satisfaction seemed based on how closely they perceived their current jobs reflected the characteristics they had cited as important to them in their work. As one participant noted, "...the job that I have now meets a lot of my needs as a job. . . There are times when I come in an hour early just because it's cool to be there."

Many appeared to measure current job satisfaction by making comparisons with past work experiences, noting that this environment or position compared favorably or unfavorably with previous workplaces. For example, several agreed with the statement made by one person that "this is the best place I've ever worked." Similarly, some respondents asserted that they were quite satisfied with their current positions and workplaces, and that they saw no need to consider other options. This comment illustrates that perspective:

> When you talk about career goals, I think most of the people in this plant, even the majority of the ones that are in the plant in manufacturing, in the front line are happy with their jobs and as long

as the company is here, they are going to be here. They don't have a feeling or need to move up. They are making a good wage.

Responses also varied somewhat by organization. Most of the employees in the manufacturing facility indicated satisfaction based on their perceptions that they were paid well, had good benefits, were treated fairly, and made a product of use to society. The financial institution had been experiencing some changes over time, so several employees of longer tenure expressed a preference for the past over the present, perceiving that employees were treated better by the company and had more opportunities for advancement and reward in the "old days." An example offered by one respondent:

> In the past, my understanding is, years ago, when people took classes, they were rewarded for it, given raises, given a $50 or $35 bonus check. They were rewarded, so most people stopped taking classes when they weren't rewarded any more.

Participants from the educational institution acknowledged low pay as something they disliked, but they saw the benefits package and job flexibility as balancing out pay concerns.

Reasons for satisfaction seemed to cluster around the nature of the work, the work environment, and perception of appropriate remuneration. Sources of dissatisfaction included failure to fulfill earlier aspirations and failure to gain advancement.

Professional Development Activities

Many responses to the question regarding activities individuals had participated in to help with their current or future work focused on traditional HRD activities. For example, many respondents had engaged in internal and external training opportunities. A wide variety of training topics were discussed as the focus of these programs including computer applications, communication skills, product knowledge, technical information relevant to the specific job, and courses that led to professional certifications or designations. Additionally, several of the participants had taken advantage of tuition reimbursement/reduction programs to pursue their college education. All three organizations provide some form of financial support for employees' higher education.

Less traditional activities frequently mentioned included serving on committees and assisting with special projects. One participant stated, "I volunteer for several things. I feel that this is probably where opportunity lies . . . it opens my eyes to a lot of things within the company. . . ." Other discussants talked about participating in team meetings and serving on safety committees or a clerical/service staff committee within their organization. Still others cited community volunteer work (i.e., United Way and Junior Achievement) as being helpful professionally and satisfying on a personal level.

In general, respondents employed by the financial service organization and the educational institution felt networking was an important career development activity. One individual discussed the importance of networking to advance in one's career, stating, "I get to know the high ups and I believe networking goes very far. . . ." Others mentioned increased knowledge and teamwork as benefits of networking.

Effects of Activities

Many of the effects of the activities pursued by respondents were intangible or not directly applicable to their jobs. In fact, the most intangible of outcomes was no perceived effect whatsoever. Closely related to the no-effect answer was frustration, an outcome resulting from unmet expectations. Some respondents, mostly those who had pursued higher education, had expected results (e.g., promotions or transfers into other types of positions) that did not materialize, resulting in frustration. One respondent who devoted much of her discretionary time in pursuit of a college degree expressed this poignantly: "It's like I spend all of my time in class away from my family and my kids and this degree is really worth nothing."

Some activities were not pertinent to respondents' current jobs but to potential future jobs or careers. A few of our respondents used tuition reimbursement as a means of preparing for a career in a different field. Others indicated further education was a way to increase their marketability in case they need to find another job.

Another category of effects revolved around new perspectives. A few respondents told us that their developmental activities had opened their eyes, giving them different perspectives and readjusting their ways of thinking. One person told us that the courses she had taken toward her master's degree had exposed her to how classmates view their employers, giving her more perspective with which to consider her own employer. Another said that she had gained a new perspective on her supervisor's job as a result of attending meetings on the supervisor's behalf. Understanding other people better was an outcome mentioned by some.

More confidence and enjoyment were also mentioned as outcomes. One respondent told us her developmental activities had made her job more enjoyable by allowing her to meet more people in other parts of the organization. Another respondent told us that, although pursuing developmental activities was sometimes uncomfortable, it had resulted in more self-confidence.

Although mentioned about half as frequently as intangible effects, our respondents did mention some more tangible outcomes of developmental activities. For example, one respondent told us that, as a consequence of her development, "people look to you." We were also told that developmental activities had resulted in employees gaining more responsibility.

In some cases developmental activities improved the day-to-day experience of employees by making their jobs easier and reducing their stress. Also some employees were able to apply their learning activities outside of work. Two participants had pursued developmental activities that helped them establish businesses. The driving force behind these efforts seemed to be a desire for more financial security.

To summarize, we did not hear about many effects of developmental activities from our respondents. The effects we heard about could potentially be grouped into two categories: personal and organizational. The personal category includes outcomes such as new perspectives, increased self-confidence, enhanced marketability, finding out something is not one's calling, and acquiring skills useful outside of work. The organizational category could include outcomes such as acquisition of skills useful on the job, assumption of additional responsibilities, and enhanced leadership ability. Of course, some effects could fit into more than one category, such as gaining a better understanding of others and reduced stress.

Additional Activities Respondents Thought Would Be Helpful

Respondents mentioned various formal company-sponsored activities they believe would be helpful. The first was refresher training to keep up with the latest developments in procedures and work rules. Another was exploration sessions using personality instruments to help employees learn about themselves and others. Training classes employees could leave work to attend were also mentioned. In one of the organizations, many employees pursued various designations/certifications, and structured classes were desired to help master the subject material.

Respondents mentioned a greater number of informal on-the-job activities than formal or offsite activities. For example, they indicated it would be helpful to have opportunities to see how their job fits into others, as would seeing what others do on the job. The feeling was that this would help employees more effectively work with and support each other. Shadowing others who do the same work was also mentioned as potentially helpful. In this case, the respondent seemed to be referring to counterparts doing the same work at other locations. A maintenance employee suggested it would be helpful for employees to train one another on what they know. A nonexempt working in an office environment suggested that time to study at one's desk would be helpful. A few other employees expressed a desire to engage in the voluntary community service activities their employer supports.

Respondents told us that more encouragement to learn and grow would be helpful. If employees are motivated to learn about what goes on in another part of the organization, the feeling was that they shouldn't be discouraged from doing so. Rewarding employees for completing developmental activities (i.e., courses) also was viewed as helpful.

In sum, we did not hear about many additional developmental activities that nonexempts felt would be useful to them, nor was there a lot of convergence. There was a feeling that removing some barriers to development, encouraging employees periodically to complete a course or try something outside their immediate work role, and supporting their efforts to do so would be helpful.

Other Issues

At the close of our questioning, we always asked if there was anything else relevant we should hear about from respondents. At this time we often heard about difficulties encountered by those seeking to develop themselves. In one organization where there is currently a big drive for cutting costs, respondents said they felt hesitant to ask to attend courses for which their department would be charged. As one respondent explained, "it is very hard when you are stressing cost reduction, cost reduction, and you're seeing all of these job eliminations and people are just being let go, you think that maybe I really don't want to take this class right now." Some said they were receiving cues from supervisors indicating reluctance to approve training because of the expense. Other respondents talked about work piling up while they were gone from the job attending classes, making it punishing to return to a job and confront an overload of waiting tasks. On a similar note, respondents mentioned guilt about co-workers having to cover for them while they were away at training.

This open-ended part of the focus group sessions also uncovered some eye-opening information about people who do not want to develop their careers. Respondents in one organization indicated that employees were being forced to create career development plans including goals and desired future jobs. Respondents made it quite clear to us that some people are happy where they are in the organization and do not want to move up or change jobs. They were careful to point out that this didn't mean that they were not willing to learn what was needed to continue to perform their jobs proficiently. The point was that some employees are very good at what they do and happy doing that, and forcing them to prepare a growth-oriented career development plan was seen as counterproductive.

Another major line of discussion was around qualifications for supervision. At the manufacturing firm we visited there was a strong feeling among nonexempts that too much emphasis was being placed on college degrees as a requirement for supervision. The nonexempts felt the company was losing money by bypassing people who could be good supervisors but who were, for one reason or another, unwilling to pursue higher education. Several respondents told us they want "a go-to" person in their supervisor; someone who knows the technical side of the job and who can answer their questions. Their feeling was that some of the college-educated supervisors did not understand the technical part of the job and were not willing to learn. There was strong sentiment among respondents at this company about this issue, making it hard to dismiss it as a typical blue-collar, white-collar perceptual difference.

Conclusions and Implications for HRD

As noted in Merriam (1998), "One of the assumptions underlying qualitative research is that reality is holistic, multidimensional, and ever-changing, it is not a single, fixed, objective phenomenon..." (202). This quote was well illustrated by the data obtained from our participants. The complexity and diversity of their perspectives provided us with a wealth of material that could not be categorized easily. This study has yielded interesting insights, but at the same time, it has prompted questions; which is, of course, the "ever-changing" aspect of qualitative work.

The results of this study indicate that those satisfied with their current positions tentatively fall into two groups. One group is happy with their current positions; they do not choose additional career advancement, they like the work they do, and they perceive they are treated well by their employers in terms of pay and recognition. Members of the other group are happy with their current positions, because they like the work and see opportunities for career advancement in an organization they believe provides sufficient remuneration for their efforts.

Conversely, those dissatisfied with their current positions typically perceive that they are not being adequately rewarded for their work, and they do not see opportunity for advancement to gain additional pay or prestige. One other tentative grouping includes those who are planning for future careers unrelated to their current jobs. Some seem grateful for an opportunity to work while they prepare for their next venture; others appear eager to leave, and in fact, their choice to change careers may be a reaction to their current dissatisfaction.

Lack of tangible outcomes of career development activities was a source of frustration for some respondents. More specifically, disappointment and frustration that a college degree hadn't resulted in promotions was a major source of complaint. There seems to be a need for more realistic expectations among some nonexempts about what a college degree can and cannot do for one's career. Also, if there are other developmental needs or deficiencies employees need to overcome, they need to hear about these so that they can choose whether to do something about them. Employees need to be given the full picture of what is needed for higher positions along with their current strengths and weaknesses. Managers need to provide this type of developmental feedback and HRD professionals often may be able to help them with this task. The dissatisfaction resulting from unmet expectations can be severe, and much of this dissatisfaction seems preventable.

These results suggest that fairness issues may influence nonexempt employees' career development. The perception that career development activities did not result in tangible outcomes may be both a fairness and psychological contract issue. As Wooten and Cobb (1999) note more research is needed to explore the relationship between CD and organizational justice.

HRD can play an important role in helping organizations assess nonexempt employees' career needs and then targeting programs to meet these needs. Those individuals expressing satisfaction and demonstrating few career aspirations may benefit most from initiatives designed to update their current skills and knowledge. It is important that HRD not ignore this group, but rather use them as subject matter experts, coaches, and on-the-job trainers. Those wishing for advancement opportunities may need and desire a larger set of HRD initiatives that might assist them in furthering their careers. Informal learning opportunities, mentoring, and career planning workshops are a few examples of the activities this group of nonexempt employees would find beneficial.

The participants in this study did not mention many HRD initiatives they had participated in, nor did they mention many they felt they had missed. For example, no one mentioned mentoring or job rotation, two common career development activities. We do not know why this was the case, and that prompts further questions. For example, are nonexempt employees unaware of the opportunities available to them? Do companies limit their access to HRD programs? Is the assumption made that nonexempts are not interested in pursuing these types of activities? A more focused study, employing quantitative methods may help answer some of these questions.

We believe the HRD community should recognize nonexempt employees as both primary stakeholders and as potential allies. A better understanding of their experiences and perceptions will help meet nonexempt employees' needs and build their capabilities. This will release untapped potential within the nonexempt workforce, thereby helping to maximize workforce performance and organizational effectiveness. It will also help the HRD profession become more inclusive in its efforts to promote personal growth and career development.

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Is Work Sharing a Better Option for Organizational Development?

Steve L. Whatley
Chan Lee
Lisa Moten
The Ohio State University

To obtain first-hand information about work sharing, the authors traveled to Wolfsburg, Germany and conducted interviews with Volkswagen organizational development employees and observed workers in the work environment. The implications of this paper indicate that work sharing is successful in Germany and that human resource development professionals should conduct further research into work sharing as a viable alternative to employee layoffs.

Keywords: Work Sharing, Job Sharing, Job Security

Job sharing has grown successfully over many years in Germany. Following the lead of Volkswagen, ten German industries agreed to implement work sharing in 1995. The success in Germany raises the question as to the potential for work sharing in the United States as an alternative to mass layoffs, i.e., layoffs involving 50 or more employees. Blyton and Trinczek (1997) explained work sharing as reducing working time to prevent mass dismissals. Cummings and Worley (2001) defined job sharing as "two people sharing a fulltime job" (p. 429) and discussed using job sharing as an alternative to downsizing or layoffs. Essentially, work sharing is a trade off between working fewer hours for less money and retaining a job versus losing a job completely.

Since 1992, the United States experienced a steady decline in the national unemployment rate until the latter portion of 2000 when unemployment began a steady increase. According to the Bureau of Labor Statistics (January-August, 2001), since mid-1999, mass layoffs have increased with few exceptions during the second and third quarter of 2000.

The number of people affected by these events has doubled since mid-1999 with a slight decrease in unemployment during the second quarter of 2001. The period January-August, 2001 was significantly higher than for the same period in 2000. In August 2001, manufacturing accounted for 41% of all mass layoffs and 49% of all people laid off. Industries included electronics, transportation, etc (Bureau of Labor Statistics, August, 2001).

In September 2001, employment fell by 199,000 although unchanging the unemployment rate of 4.9% up from 3.9% one year ago (Bureau of Labor Statistics, September, 2001). A month later, job losses were spread across most industry groups, with particular large increases in unemployment in manufacturing and services. The Bureau's report was the first since terrorists attacked the World Trade Center on September 11th. Although the U. S. economy was weakening before the attacks, this downturn was exacerbated by the event of September 11th. The lack of demand for products and services encompassed 28% of all mass layoff events. Less than two out of five employers with layoffs in the third quarter of 2001 expected recalling employees. The manufacturing industry experienced 40% of all mass layoff events up from 37% one year before (Bureau of Labor Statistics, October, 2001). In November 2001, 42% of all mass layoff events involved the manufacturing industry (Bureau of Labor Statistics, November, 2001).

Again, the extensive use of mass layoff versus the success of work sharing in the Germany raised two research questions: First, to what extent does the literature address themes and issues on job sharing to avoid mass layoffs? Second, to what extent do the factors that influence the success of job sharing in Germany, using Volkswagen as a benchmark, differ from factors concerning job sharing in the United States?

Methodology

The authors first sought to determine the extent to which the literature addressed work sharing, or job sharing, as it is known, in the United States and its application to mass layoffs. It is important to note that because of the absence of academic articles related to work sharing the authors were required to use resources from either professional or popular journals. However, to learn about work sharing firsthand, they traveled to Germany and observed the work sharing program at the Volkswagen's headquarters in Wolfsburg in May 2001.

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Findings

Literature Search

Four databases from two disciplines, education and business, were searched on October 7th. These databases included the Educational Research Information Center (ERIC), Education Abstracts, ABI/Inform Global, and Business and Industry. Two of the databases, ERIC and ABI/Inform Global, were used because of being recognized as "major resources in HRD Research Literature" (Swanson and Holton, 1997, p. 186). The ERIC and Education Abstracts databases represent the education aspects of work sharing, while ABI Inform and Business and Industry databases represent the business and industry aspects of work sharing.

Key terms used in the search were work sharing and job sharing. It is important to note that the ERIC database identified the key term job sharing as a synonym of work sharing. The ERIC, Education Abstracts, ABI/Inform Global, and Business and Industry databases were searched using each key term from 1966, 1983, 1971, and 1994 respectively.

A total of 845 articles were found in all of the databases combined. The ERIC contained a total of 82 articles. All 82 articles were located using the key term job sharing, while no records were found using the key term work sharing. The Education Abstracts search revealed a total of 42 articles. Two records were found using the key term work sharing, and 40 records were found using the key term job sharing. The search in the ABI/Inform Global database revealed 640 articles with 303 articles found using the key term work sharing, and 337 records were found using the key term job sharing. The Business and Industry database contained a total of 81 articles with 22 found using the key term work sharing and 59 found using the key term job sharing.

Type of Articles

Once the records were categorized according to key term, they were then classified by type of article: popular, professional, and academic. Popular articles were defined as articles intended for the general population. Professional articles were defined as articles intended for practitioners. Academic articles were defined as peer-reviewed articles and published in scholarly refereed journals (See Table 1).

Within the ERIC database, 63 of the records were classified as popular articles while 19 articles were classified as professional articles. The ERIC database did not contain any academic articles. Within the Education Abstracts database, 34 articles were classified as popular articles and seven were classified as professional articles. The Education Abstracts database did not contain any academic article. Within the ABI/Inform Global database, 512 articles were classified as popular articles, while 126 were classified as professional articles. There were only two academic article found in the ABI/Inform database (Blyton and Trinczek, 1997; Singh, 1999). The Business and Industry database search revealed 72 articles that were classified as popular articles, while nine articles were classified as professional articles. Again, as in the previous three databases, no academic articles were found in the Business and Industry database.

Work Sharing at Volkswagen

In the 1980s, Volkswagen's strategy involved the introduction of new technology and process automation as the principal route to increased productivity and lower costs, a strategy widely shared in Germany during that period. However, work cycles were longer and work pace slower with the initial adoption of the technology-driven strategy resulting in little room for team and group-work practices popular elsewhere. By the late 1980s, rising labor and other costs, created internal discontent within the company and planners retreated from ambitious automation targets resulting in huge losses in 1991 and 1992 (Tolliday, 1995).

The idea of work-sharing, which is redistributing available work by reducing the working hours and pay of employees, gained an increasing profile in German industrial relations as a result of Volkswagen's pioneering agreement with labor in 1993. Volkswagen's commitment was to secure stable and stimulating working, learning, and living conditions for the long-term (Phillips, 1987). Management's commitment to labor was evident during the authors' visit to Volkswagen's headquarters. In 1995, labor and management came to a work sharing agreement that included management's guarantee of jobs: Positions that included 30 hour workweeks and pay for overtime. Volkswagen used 450 different work schedules to accommodate work sharing (Whatley and Lee, 2001). The adjusted workweek schedule resulted in an increase in productivity and a reduction in absenteeism (Huberman, 1997).

Interview sources were quick to point out that maintaining positive relations with labor has proven to be in the best interest of Volkswagen's stability and longevity as well as promoting the German government's policy and in fact, the German philosophy, of social partnership.

Particular characteristics appear to be prevalent throughout Volkswagen's history as they pertain to the organization's culture. Open communication, harmony, dialogue and cooperation are attributed to the overall success of labor-management relations and thus Volkswagen's success. The labor-management relationship lead to cooperation in solving some of Volkswagen's most pressing problems including improving technology at the cost of losing production jobs, lowering production costs, and implementing work sharing.

Factors Contributing To Success

There are several satisfactory reasons why Volkswagen implemented work sharing versus mass dismissal to solve over-employment problems, which also serves as bases for use of work sharing in the United States, such as: layoffs would have damage cooperative relationships between labor and management. Based on the *Soziaplan* in the Works Constitution Act, German companies consider social criteria like age, family status, and length of service before terminating employees. Thus, labor groups in Germany have inherent power unheard of in the United States. Conversely, management in the United States, has virtually unlimited power to effect mass layoffs rather than seek other alternatives that could prove just as beneficial. In essence, the process employing the best person, the appropriate number of employees and using an effective employment process becomes less important and employees become expendable.

Since the local government of Lower Saxony is the primary stockholder in Volkswagen, it is doubtful that a mass dismissal plan would be implemented. These reasons do not mean work sharing is negative. Work sharing has provided several advantages to the company including saving labor costs of 1.6 billion DM in 1994 (Blyton and Trinczek, 1997). Even if Volkswagen saved these labor costs by mass dismissal, it would eventually acquire recruitment and training costs in the future, as is experienced commonly in corporate America. However, because of work sharing, Volkswagen has maintained quality standards by retaining existing work groups. Also, since Volkswagen guarantees job security, it assists in raising productivity; otherwise, workers would hesitate to suggest ideas for improving processes because of fear that their ideas may reduce the number of jobs (Blyton and Trinczek, 1997; Whatley and Lee, 2001).

Consideration for Work Sharing in the United States

Organizations across the United States have engaged in downsizing, most recently referred to as "rightsizing". Regardless of the term used, rightsizing in many situations is nothing less than mass layoff. Organizations have taken this "developmental" approach to streamline their organization by ridding itself of multiple layers of management no longer seen as necessary or useful.

In the process of rightsizing, organizations may in effect reduce overhead as it relates to labor costs, however, losses are also experienced by the organization as well. Organizations lose experienced workers, who possess core competencies for future growth, but also at some point need to be replaced and retrained for the positions once held by the "rightsized" employee (Cummings and Worley, 2001). Stated differently, positions once eliminated are restored.

Rightsizing creates problems within the organizational climate by creating distrust with employees who question their future with the organization. In other words, employees not knowing about the longevity of their employment may be apprehensive about offering their continued loyalty to an organization that may or may not demonstrate its loyalty by providing continued employment. In the long-term, "rightsizing" begs the question: Is rightsizing developmental? Therefore, work sharing should be considered as a better alternative rather than rightsizing for organizational development.

Implications For Human Resource Development

Human resource development implementation of work-sharing at Volkswagen demonstrates not only maintenance of the primary work-sharing ground rules such as reduced working hours, decreased income, and guaranteed job security but also essential compromises with its union in recompense for the job security and hourly wage increases.

However, there are several important points to consider for the successful transferability of organizational

change in Volkswagen or in organizations in the United States: First, the employer's approach to solve over-employment problems is critical. Even within the German auto-industry, Daimler-Benz has continuously worked on mass dismissals because of management's belief that work sharing like Volkswagen's case would just delay problems rather than solve them.

Second, employees at Volkswagen already had been paid relatively high wages before implementing organizational change strategy. It would be much more difficult to make an agreement with workers in lower wage companies. Third, even if work sharing at Volkswagen functions as a short-term solution, it does not guarantee job creation (Heuser, 2000). Although having a part-time job is better than not working at all, it is still not an ideal alternative.

Conclusion

Two major themes concerning work sharing aimed at organizational development have been raised in this paper: the absence of HRD research concerning work sharing and the limited use of work sharing as an alternative to mass layoffs in the United States.

The limited use of work sharing in the United States may link directly with the absence of HRD research concerning work sharing, thus, verifying a gap between HRD research and practice. The literature on work sharing is limited to either professional or popular journals rather than academic sources. Though there is difficulty because of the absence of academic research on work sharing issues, HRD professionals should focus on work sharing/job sharing to support organizational development efforts in becoming more "developmental" rather than "detrimental." Further research should focus on the planning and implementation process of work sharing to provide empirical validation of HRD role in organizational development.

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Table 1. *Journal by Database*

As of October 7, 2001	Total DB count when searched	Descriptors	Total numbers of the records	Type of Journal		
				Popular	Professional	Academic
ERIC:		Work Sharing	0	0	0	0
Since 1966	1,068,797	Job Sharing	82	63	19	0
Education Abstracts:		Work Sharing	2	1	1	0
Since 1983	536,965	Job Sharing	40	33	7	0
ABI/Inform Global:		Work Sharing	303	237	65	1
Since 1971	1,983,774	Job Sharing	337	275	61	1
Business & Industry:		Work Sharing	22	13	9	0
Since 1994	2,222,611	Job Sharing	59	59	0	0
		Work Sharing	327	251	75	1
Sub-Total		Job Sharing	518	430	87	1
%			100	80.6	19.2	0.2
Total	5,812,147		845	681	162	2

Identification of Key Predictors of Rapid Change Adaptation in a Service Organization

Constantine Kontoghiorghes
Oakland University

Carol Hansen
Georgia State University

This exploratory study attempted to identify key predictors of rapid change adaptation in a service organization. The results of this study suggested that rapid change adaptation will be more likely to occur in an organizational setting within which there is an emphasis on process and quality improvement, innovation, rapid technology assimilation, and internal customer focus.

Keywords: Change Adaptation, Innovation, Quality Management

As organizations begin the 21st century, change appears to be everywhere. As organizations transform the way they produce goods and modify the way services are delivered, numerous social, economic and technological pressures bombard them. To name a few, they include market fragmentation, shrinking product lifetimes, global production networks, workplace diversity and mobility, simultaneous intercompany cooperation and competition, and the business process reengineering movement (Oden, 1999). Given the intensity of these challenges to organizational survival and competitiveness, it is not surprising that most organizations find themselves operating in mo re complex, unpredictable and dynamic environments (Lewin & Johnson, 2000). To cope, most organizations consider themselves to be in a state of continuous improvement where they must accelerate the pace and effectiveness of their change strategies (Oden,1999). The contemporary significance of organizational change is indicated by the recent proliferation of terminology such as, organizational transitioning, organizational renewal, organizational effectiveness, organizational improvement, and so on (Lundberg, 1999).

Felkins, Chakiris and Chakiris (1993) define the management of change as an interactive process that links daily work practices with strategic, directed change programs and performance goals. Pettigrew, Woodman and Cameron (2000, p. 698) elaborate "Change should refer to sequences of individual and collective events, actions, and activities unfolding over time in context." French and Bell (1999) note that inquiry about organizational change is founded in organization development theory and practice. They join the two constructs by defining organizational development as planned change in an organizational context. These definitions call to mind issues of process, pace, people, and environmental context. The focus on process contrasts with earlier views that change is a discreet movement from one state to another (Lewin, 1951). The assumption that change is continuous rather episodic suggests that change is ongoing, evolving, and cumulative in its attempt to yield a new pattern of intentions (Orlikowski, 1966). The role of people in these definitions suggests that an organization's members both shape and are shaped by change (Lundberg, 1999). Finally, the importance of organizational context and its impact on change is reflective of socio-technical systems theory (Pasmore, 1988).

While ways of thinking about change have, over time, evolved, differences persist in how scholars view its unfolding and management. Variance in perspectives range from a fairly mechanistic approach, whose principles assume an objective reality to a more dynamic and interrelated view of organizational behavior, based on participation, dialogue and teamwork. These worldviews can be categorized into a typology of four perspectives; behavioral, critical humanism cultural and systems theory (Felkins, Chakiris, & Chakiris, 1993). Behaviorists see change as a rational, measurable, and directed process with clear predictable and manipulable causal relationships. Critical humanism as a change perspective is centered on experience and encourages individuals and their organizations to question dominant ideologies. A cultural approach to change suggests an interpretive sense of reality where change occurs through social interaction based on cultural norms that are unique to a given group or organization. The systems approach places an emphasis on the gestalt of interdependent processes that respects the complexity of organizational relationships and structures. It is the last two perspectives that have most informed the study reported in this paper.

French and Bell (1999) note that as the history of organizational development has matured, certain change models advanced the practice. For example, Lewin (1951) introduced the idea that change is a three-stage process where behavior moves from one state to another and where change results from interplay with opposing forces. Kilman (1989) specified a total change system that consisted of critical leverage points within five sequential states.

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The notion of first (transactional) and second (transformational) order changes was the basis for the Burke-Litwin model of organizational change (1994). The thinking was that transactional changes that impacted the work climate were easier to than deeper transformational changes designed to impact the deeper layer of the organization's culture. Porras and Robertson's model (1991) describes change as part of a system in interaction with its environment. They offered the premise that organizational development interventions alter features of the work setting which impact an individual's behavior and lead to individual and organizational improvement. This evolution in perspectives and practices formed the foundation for a current breed of change models that emphasize the integration of social and technical systems in supporting the continuous process or change.

Socio-Technical Systems

The sociotechnical systems approach is based on the notion that organization survival requires systems that are open and able to interact with their environment. Oden (1999) portrayed opens systems theory as:

> "A dynamic relationship with its environment, receiving various inputs, transforming them in some way, and producing outputs. Receiving inputs in the form of material, energy, and information, along with feedback regarding outputs, allows the open system to offset the process of decline. Moreover, the open system adapts its internal processes and structures to its environment as the need arises." (p.14)

The organizational system can be divided into two subsystems: the social and the technical. This perspective assumes that the two factors of technology and people are essential to the change process. Neither alone is the driver of change. Oden described the application of social change without technology is merely automation and the application of technical reengineering is merely reorganization.

Lunberg (1999) offered an interesting view of how the social side of the socio-technical systems perspective works through his theory of social rules. This theory views organizations as social systems, composed of members who are agents with varying degrees of influence. Rule systems govern the transactions among members of the social system by sharing the nature, impact, content and outcomes of interactions and relationships. As these rules are created, learned, maintained and modified by individuals within the organization, its members also develop distinct identities and associated capacities to influence social rules in varying contexts. An additional assumption is that rules can be both a positive and negative force. While rules are necessary to make social transactions easier and more predictable, they also serve as barriers to change. The notion of social rules is reflective of culture theory as cultural norms are socially learned and reinforced (Spradley, 1979). Blumer (1969) noted that it is the social process that creates and upholds the rules and not the rules that invent group life.

The technical side of socio-technical systems theory can be linked to an interest in reengineering, which emerged in the early 1990's as a relatively new management approach. In general, the first step in a reengineering effort is to rethink the organizational system in terms of its key processes and the technology available to carry them out. After the necessary process and technology related changes are introduced, the focus shifts to how the organization is managed and structured (Lawler & Mohrman, 1998). Lawler and Mohrman note that it is mostly top down process, which requires significant redistribution of power and authority and significant investment in information technology. According to French and Bell (1999) reengineering "does not appear to pay much attention to the social system of organizations relative to change processes and the redesign of work. " Yet, reengineering has failed to produce the desired outcomes in terms of competitive advantage. "Recent reports, supported with the viewpoints expressed by the founders of this movement, claim that more than 70 percent of reengineering efforts have failed to achieve their purposes" (Lawler & Mohrman, 1998, p. 205). High failure rates may be attributed to that to many people reengineering means downsizing which according to numerous studies rarely accomplishes its goals (Lindsay & Petrick, 1997). Such dismal outcomes appear to confirm the need for both a social and a technical perspective in achieving effective change through practice and research.

The Context of Quality and Change

TQM can be characterized as a people –focused management system whose philosophy and guiding principles for continuous improvement are based on teamwork and employee empowerment (Harvey & Brown, 2001; Linday & Petric, 1997). Through well structured processes, TQM aims to create an environment that encourages people to grow as individuals and learn to bring about both small but continuous (Kaizen) and drastic or breakthrough improvements" (Dervitisiotis, 1998; p. 112). What differentiates TQM from reengineering is its focus on cultural empowerment and an attention to change in small and continuous increments. TQM, interventions tend to fail when implemented, similar to reengineering, as top-down programs that assume neither an upward flow of involvement nor consensus decision-making (Hammer & Champy, 1993).

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The role of management is key to understanding TQM. According to the TQM philosophy, most quality-related problems in the organization are caused by bad management and the systems that managers create and operate (Deming, 1986; Lawler & Mohrman, 1998). Likewise, the power of management in fostering quality driven cultures is in consonant with the organizational culture literature. This stream of study finds that management, in particular, executive management creates and maintains the cultural values of their organizations through the work models that they reward (Hansen & Kahnweiler, 1997; Schein, 1985; 1990).

Studies that have focused on the link between culture, work models, and TQM indicate that, in general, that a participative, flexible, risk-taking, team-based, and quality driven organizational culture positively supports TQM efforts (Detert, Schroeder & Mauriel, 2000; Fiorelli & Feller, 1994; Kontoghiorghes & Dembeck, 2001). Thus a company's prevailing cultural characteristics can inhibit or defeat a chnage effort before it begins. "Companies with a top-down management style, a short-term orientation that keeps them exclusively focused on quarterly results, and a bias against conflict may be uncomfortable challenging long-established rules" (Hammer & Champy, 1993, p.207). Detert, Schroeder & Muriel (2000) identified a set of 8 specific value dimensions that appear to theoretically lead to quality cultures: Management should be based on facts; long term planning and goal setting is preferable to a short term orientation; the sources of problems should be searched for in processes – not in people; a premium is placed on change (as opposed to stability); the purpose of the organization is to achieve results that its stakeholders consider important; collaboration and cooperation is preferable to working alone; the vision, goals and responsibilities of the organization should be shared; success ought to be judged against external benchmarks.

Meanwhile, Detert et al. (2000) call for more studies by arguing that this is an area that has been inadequately explored. For instance, Olson and Eoyang (2001) state that there are over fifteen group methods that can guide change in organizations. The authors further state that "this variety produces a kind of cacophony that defies integration and does not allow any one voice to stand out as a logical alternative to the traditional explanations" (p. 6). Scholars and practitioners, on the whole, acknowledge the need for more research in organizational change. However, a recent review of the literature finds that the quality of data has advanced little in the past 25 years (Pettigrew, Woodman & Cameron (2001). Pettigrew et al. characterize current knowledge as too antidotal, containing few theoretical propositions and based on studies that are lacking in rigor. They call for a new pluralism between the social science and management scholars that entails a new dedication to time and history and a willingness to reveal the relationship between change processes and outcomes by portraying changes as continuous processes and not just detached episodes. The authors suggest that the literature is underdeveloped regarding these six interconnected analytical issues: multiple contexts or levels of analysis; time, history, process and action; linking process to outcome; international comparative research; receptivity, customization, sequencing, and pacing; linking scholarship and practice.

Problem Statement

Given the limitations and lack of rigorous research pertaining to change in organizations, the main purpose of this empirical study was to identify, prioritize, and describe the most important work environment variables in terms of rapid change adaptation in a health insurance service organization. The work environment was assessed in terms of the following learning and organizational dimensions: learning climate; management practices; employee involvement; organizational structure; communication systems; reward systems; job design; job motivation; organization commitment; job satisfaction; innovation practices; technology management; teamwork climate; ethical work culture; and process improvement climate. The dependent variable used for this study pertained to the extent to which the organization can adapt to changes instantly.

Research Questions

This main research questions for this study were as follows:

1. Which of the organizational variables incorporated in the study are highly associated with rapid change adaptation?
2. Which of the organizational variables incorporated in the study can serve as predictors of rapid change adaptation?

Methodology

Instrument. The instrument of this study consisted of a 108 Likert item questionnaire, which was designed to assess the organization in terms of the earlier described dimensions. Many of the dimensions and indicators were assessed with scales that were used or described in previous literature or research (Buckingham & Coffman; 1999; Hackman & Oldham, 1980; Kontoghiorghes, 2001a; Kontoghiorghes, 2001b; Kontoghiorghes & Dembeck, 2001; Lindsay & Petrick, 1997; Macy & Izumi, 1993; Pasmore, 1988; Whitney & Pavett, 1998), while several were custom-designed specifically

for this and other studies. In all, the questionnaire attempts to determine the extent to which the organization is functioning as a high performance system and according to TQM and sociotechnical systems theory principles. Further, the instrument assesses the extent to which the organizational environment is conducive to training transfer and a continuous learning culture.

The instrument utilized a six-point scale that ranged from "strongly disagree" to "strongly agree". The first version of the questionnaire, which consisted of 99 Likert items, was originally pilot-tested on a group of 15 participants for clarity. Furthermore, a group of seven experts in the organization development, human resource development, or quality management areas reviewed the instrument for content validity. Upon revision, the instrument was then administered to a group of 129 members of five different organizations. Reliability tests were conducted and the instrument was further refined and expanded. As stated earlier, in its final format the instrument consisted of 108 Likert items. The reliability of the instrument was measured in terms of coefficient alpha and was found to be 0.98.

Subjects. The sampling frame of this study consisted of 256 employees of a large organization in the health care insurance industry. The instrument was administered in one division of the organization in order to determine the extent to which it was functioning as a high performance unit. The employees were given the survey instrument at scheduled staff meetings over a period of two weeks. 192 out of the 256 employees returned the survey and the response rate was calculated at 75%. In all, 86.4% of the respondents were females and 13.6% males. In terms of position held in the organization, 4.1% of the respondents were identified as either a vice president or director of the unit, 4.1% as managers, 11.6% as supervisors, 65.7% as salaried professional, 12.8% as administrative personnel, and 1.7% as hourly employees.

Data Analysis. Based on the gathered data, a correlational analysis was used to describe the extent to which the organizational variables incorporated in the study are associated with rapid change adaptation. Further, through a stepwise regression analysis the most important predictors of rapid change adaptation variable were identified.

Results and Findings

Correlational Analysis. In total, change adaptation was found to be positively and significantly correlated with 99 of the other 107 variables incorporated in the questionnaire. These significant correlations ranged from 0.152 to 0.664 and reflected all learning, sociotechnical, and quality management dimensions assessed by the instrument. This finding in essence validates the systemic nature of rapid change adaptation and thus its reliance on multiple organizational dimensions for successful implementation. Given the large number of significant correlations and the fact that the main purpose of this study is to identify the stronger predictors of change adaptation, only those that were found to be 0.4 or higher are listed in Table 1.

As shown in Table 1, change adaptation was found to be moderately to highly associated with 29 organizational variables which in turn represented the sociotechnical, quality management, and learning environment dimensions. A closer look at Table 1 will reveal that most organizational variables represent the sociotechnical and quality management dimensions and range from 0.400 to 0.63. It is worth noting that none of the training transfer climate variables were found to be highly associated with rapid change adaptation. This finding suggests that successful change interventions depend more on the design, operational, and cultural characteristics of the organization rather than the skill level and expertise of the workforce.

In terms of the sociotechnical variables, the correlational data in Table 1 reveals that change adaptation will be more likely to occur on a more rapid basis if introduced in a participative and non-bureaucratic *work environment* within which there is constant communication and no boundary interference between departments. Other work environment variables that were found to be moderately to highly associated with change adaptation were: strong organizational commitment toward the employees ($r = 0.46$; $p < 0.01$), encouragement by the organization to have a healthy balance between work and life obligations ($r = 0.45$, $p < 0.01$), and the extent to which the organization is characterized by high ethical standards ($r = 0.44$, $p < 0.001$). Collectively, these work environment variables describe a non-bureaucratic and ethically driven system, which promotes employee involvement and well being.

With regard the *job and team environment*, change adaptation was found to be more highly associated with a high performance team environment within which team members are deeply committed to one another's personal growth and success ($r = 0.48$, $p < 0.01$), are willing to put in effort above minimum required in order to help the organization succeed ($r = 0.44$, $p < 0.01$), and have personal influence over their own work ($r = 0.42$, $p < 0.001$). In other words, rapid change adaptation is more likely to occur in a true team environment within which employees are deeply committed to the success of the organization and each other and enjoy autonomy on how to perform their jobs. These results demonstrate the importance of designing organizations that promote employee commitment and teamwork. Hence, paying close attention to the needs of the social system is still very important when rapid change adaptation is a desired outcome.

As far as the dimensions dealing with *innovation, technology, and rewards* are concerned, the correlations in Table 1 make it apparent that rapid change adaptation is more likely to occur in an innovation driven system within which risk taking not only is not punished, it is expected. Moreover, within such an environment new ideas are constantly sought and rewarded. This kind of work environment is in direct contrast to the bureaucratic model of management, which in turn advocates strict adherence to rules and regulations while at the same punishes or drives out of the organization those who challenge it. It is not by accident then that bureaucratic organizations have such a hard time coping with today's rapidly changing times and often rely on drastic reengineering efforts in order to address their numerous and stagnation related problems.

Table 1. *Pearson Correlations of Instant Change Adaptation With Organizational Variables (r > 0.4)*

Variable	Change Adaptation
SOCIOTECHNICAL SYSTEM VARIABLES	
Work Environment	
Participative organization	r = .60**
No boundary interference between departments to solve joint problems	r = .52**
Few bureaucratic barriers to get job done	r = .48**
Constant communication between departments	r = .48**
Strong organizational commitment to employees	r = .46**
Organization encourages healthy balance between work and life obligations	r = .45**
People live up to high ethical standards	r = .44**
Job and Team Environment	
Deeply committed to one another's success	r = .48**
People willing to put in effort above minimum required	r = .44**
Personal influence over work	r = .42**
Innovation, Technology, and Rewards	
Few restrictions to innovation	r = .59**
Risk taking is expected	r = .51**
Risk taking not punished	r = .50**
New ideas rewarded	r = .50**
New ideas are constantly sought	r = .49**
Rapid technology assimilation	r = .56**
Frequent technology introduction	r = .47**
Technology primary support in quality efforts	r = .43**
Profit sharing	r = .48**
QUALITY MANAGEMENT VARIABLES	
Structure of organization facilitates focus on process improvement	r = .63**
Internal customer focus	r = .55**
Quality measurement	r = .52**
Excellence commitment	r = .52**
Emphasis on doing things right the first time	r = .45**
Quality improvement primary focus	r = .41**
Quality improvement is a high strategic priority	r = .41**
LEARNING ENVIROMENT VARIABLES	
Employee commitment to continuous learning	r = .50**
Learning is well rewarded	r = .40**
Sharing of knowledge and expertise with others	r = .40**

**Correlation is significant at the 0.01 level (2-tailed). Listwise N=159

The data in Table 1 also suggests that rapid change adaptation is highly associated with rapid technology assimilation ($r = 0.56$, $p < 0.01$), frequent technology introduction ($r = 0.47$, $p < 0.01$), and the use of technology as a primary support in the organization's quality efforts ($r = 0.43$, $p < 0.01$). This finding is not surprising, given that the more rapidly the organization assimilates frequently introduced technologies the quicker it adapts to the related changes. Another implication of this finding pertains to the validation of the importance of sociotechnical systems theory. More specifically, the findings described in this technology related section in conjunction to those pertaining to the need of a highly participative, committed, and team oriented social system, demonstrate that organizational renewal and success do indeed depend on the optimization of both subsystems, the social and the technical. This finding is important in the sense it reinforces the fundamental premise of STS theory of "joint optimization" of both subsystems, while at the same time highlights the importance of systemic solutions when it comes to creating flexible and adaptive systems.

In terms of rewards, rewarding new ideas ($r = 0.50$, $p < 0.01$), profit sharing ($r = 0.48$, $p < 0.01$) as well as rewards for learning ($r = 0.40$, $p < 0.01$) were found to be positively and significantly correlated with rapid change adaptation. This finding suggests that when the employees believe that positive organizational outcomes will result into personal

gains then the employees will be more motivated to adapt the introduced changes. The positive association between rewards for learning and rapid change adaptation indicates that a reward system that is also based on pay for skills and knowledge does indeed offer the organization an advantage when it comes to change adaptation. However, given the high correlation between rewards for new ideas and change adaptation, special attention should be paid to the rewards for new ideas component. The effectiveness of a rewards for new ideas system can be exemplified by the fact that last year alone, employees at the Toyota plant in Georgetown Kentucky provided the organization with more than 70,000 new ideas. The payoff for these ideas was about $3 million. The instituted changes in turn saved the organization $28 million (Toyota Information Seminar, 2001). It is important to note that aside from the gains stemming from improvements, rewarding new ideas assists the organization in creating a more participative system which in turn, as it was found by this study, is also highly associated with instant change adaptation ($r = 0.60$, $p < 0.01$). Lastly, another very important outcome of such a rewards system is the fact the change process itself is owned by those who actually implement the changes which in turn is critical when it comes to successful change interventions.

With regard to quality management (QM), the correlations in Table 1 indicate that rapid change adaptation is highly associated with a quality driven culture. As shown, the correlation between change adaptation and the extent to which the structure of the organization facilitates focus on process improvement ($r = 0.63$, $p < 0.01$) was by far the highest in the table. Other QM variables that were found to exhibit a Pearson correlation of 0.40 or higher were: internal customer focus ($r = 0.55$, $p < 0.01$), quality measurement ($r = 0.52$, $p < 0.01$), excellence commitment ($r = 0.52$, $p < 0.01$), emphasis on doing things the first time ($r = 0.45$, $p < 0.01$), the extent to which quality improvement is a primary focus for the organization ($r = 0.41$, $p < 0.01$), and the extent to which quality improvement is a high strategic priority ($r = 0.41$, $p < 0.01$).

The last group of variables to be discussed under the correlational analysis are those belonging to the learning environment. A close look at the learning related variables in Table 1 will reveal that rapid change adaptation will be more likely to occur in an environment within which employees are committed to continuous learning ($r = 0.50$, $p < 0.01$), are rewarded for their learning ($r = 0.40$, $p < 0.01$), and share their knowledge and expertise with others ($r = 0.40$, $p < 0.01$). Collectively, these three variable demonstrate that a continuous learning culture can indeed act as a catalyst to organizational change and renewal.

Stepwise Regression Analysis. The results of the stepwise regression analysis of the change adaptation variable are summarized in Tables 2 and 3. As it is shown in Table 2, the produced regression model accounted for 59.5% of the total variance of the dependent variable and it incorporated in its design 11 independent variables. At 4.0%, shrinkage of the R^2 value can be considered very small.

Table 2. *Stepwise Regression Model of Change Adaptation*[a,b,c]

Model	Variables Entered	Removed	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	Structure of organization facilitates focus on process improvement	.	.626	.392	.389	1.09
2	Rapid technology assimilation	.	.674	.454	.447	1.03
3	Internal customer focus	.	.700	.491	.482	1.00
4	Profit sharing	.	.714	.510	.499	0.98
5	Awareness of how work unit processes fit with those of other work units	.	.730	.533	.519	0.96
6	Few restrictions to innovation	.	.744	.554	.538	0.94
7	Quality is measured at every step of the process	.	.755	.571	.553	0.93
8	Receive supervisory feedback on performance	.	.764	.583	.564	0.92
9	Personal influence over my work	.	.773	.597	575	0.91
10	Quality improvement is based on objective data	.	.781	.610	.587	0.89
11	People willing to put in effort above minimum required	.	.787	.620	.595	0.88

a. Dependent Variable:Instant change adaptation; N = 176

b. Method: Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100). c. $F = 24.46$, $p < 0.001$

Accounting 38.9% of the total variance, the variable pertaining to the extent to which the structure of the organization facilitates focus on process improvement was found to be the strongest predictor of change adaptation. The second and third predictors selected by the regression model, which accounted 6.2% and 3.7% of the total variance respectively,

were rapid technology assimilation and internal customer focus. The remaining predictors selected by the regression model were: a) profit sharing; b) awareness of how work unit processes fit with those of the other work units; c) few restrictions to innovation; d) product/service quality is measured at every step of the way; e) supervisory feedback on performance; f) personal influence over one's work; g) decisions on quality improvement are based on objective data; and, h) people in the organization are willing to put in effort above minimum required.

Summary and Conclusions

In short, the correlational analysis of this study found rapid change adaptation to exhibit a correlation of 0.5 or higher with the following organizational variables: participative organization; the extent to which there is no boundary interference between departments to solve joint problems; few restrictions to innovation; the extent to which risk taking is expected; the extent to which risk taking is not punished; the extent to which new ideas are rewarded; quality measurement; organizational commitment to excellence; and, the extent to which the employees of the organization are committed to continuous learning. At the same time, the stepwise regression model identified the following variables to be the most important predictors for rapid change adaptation: the extent to which the structure of the organization facilitates focus on process improvement; rapid technology assimilation; internal customer focus; and, profit sharing.

Collectively the correlational data and the independent variables in the regression model suggested that rapid change adaptation would be more likely to occur in an organizational setting within which there is an emphasis on process and quality improvement, employee participation, rapid technology assimilation, innovation, and internal customer focus. Within such a participative system quality is measured at every step of the process, there are few restrictions to innovation, and the organization shares its profits with the employees. Furthermore, within such a system risk taking is not only not punished, is expected. New ideas are constantly sought and rewarded while employees enjoy task autonomy, put in effort above the minimum required, are genuinely committed to each other's success and growth, and receive supervisory feedback on their performance.

In all, the findings of this study highlight the importance of STS theory and demonstrate that rapid change adaptation is more likely to occur in an optimized sociotechnical system for which employee involvement, commitment, and empowerment are of great importance. Given the high correlations between several TQM variables and change adaptation, one can further conclude that rapid change adaptation is significantly facilitated by an environment for which quality, excellence, and continuous improvement are a strategic priority. This can be considered an important finding because as of late some have questioned the effectiveness of total quality management in today's rapidly changing world. The new argument is that organizations need large and drastic changes in order to cope with today's fast changing environments. Thus, advocates of the reengineering approach claim that TQM, which relies on small but continuous changes, cannot be an effective approach to drastic changes. The results of this study prove otherwise. In general, companies that function under a continuous improvement mode do not need to make drastic changes in order to cope with the demands of the external environment. In fact, it is frequently the continuously improving companies that make it necessary for the competition to implement drastic changes in order to bridge the corresponding performance gap. Hence, the results of this study further suggest that unless reengineering efforts are accompanied with cultural changes that transform the organization into an innovative and non-punitive entity, the organization will still find itself having difficulty adapting to changes in a rapid manner and thus being subjected to periodic and unproductive drastic changes.

Implication for Human Resource Development and Limitations of the Study

This study has significance for HRD practitioners who serve as change agents. In this capacity, they must foster a philosophy of open systems where transformation considers both the social as well as the technical side of change. By helping organizations embrace the sociotechnical doctrine, they enhance their ability to foster the predictors of instant change adaptation identified in this study. Key to an organization's readiness and willingness to accept the quality of this perspective is their organizational culture.

Cultural norms are deep, difficult to see and for most, impossible to articulate. It is the role of HRD, given the field's philosophical commitment to people and people-focused management, to uncover and provide guidance in interpreting these belief systems. In particular, help is needed to understand how an organization's culture supports or hinders the principles of total quality management and continuos improvement. Given serious support from top management, HRD practitioners can work with individuals to reshape inappropriate reward structures, managerial practices and work models. By transforming these factors, a culture of excellence, synergy and innovation can emerge through new systems designed to favor employee empowerment, teamwork, and an openness to continuos learning. In short, the social rules can and must change. Without a supportive culture, the potential for effective and rapid adaptation drops dramatically, as the organization becomes a candidate for yet another failed reengineering attempt where there is little or no sustainable impact to bottom line performance.

In terms of future research, the main limitation of this study was that its data was gathered from a single source and was conducted in a service organization. Replicating this study in other industries and environments will help determine the extent to which the presented results can be generalized to other settings.

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Research and Theory - Internationalization of Organization Development: Applying Action Research to Transnational Health Organizations

Carol Pavlish
College of St. Catherine

The well being of people around the world are increasingly dependent on effective transnational collaboration in health policy making and strategic planning. By facilitating transcultural interaction and planning, consultants in Organization Development (OD) can contribute significantly to managing issues of great human concern. This paper addresses the cultural competencies OD consultants need as they implement action research and work with transnational health organizations to construct a more socially just and healthy world order.

Keywords: Culture, Action Research Model, Organization Development

Virtually all organizations are coping with the concept and impact of globalization either as part of the context in which they function or as part of their internal operations and strategic management. In particular, international health organizations are struggling with the need to establish collaborative transcultural relationships to address the challenges of infectious diseases such as tuberculosis, AIDS, and hepatitis as well as the health consequences of population shifts, rapid social change and political violence. These complex health and social issues affect most societies and, therefore, require transnational analysis and solutions. After studying the history of international public health, Walt (2001) concludes that the current trend in globalization creates the challenge of international health cooperation in developing global health policy and forming more public-private partnerships to address global, national, and local health concerns. He states, "although there are clear advantages to this type of cooperation, from the input of new ideas and energy to the harnessing of new financial resources, it is as yet unclear what sorts of problems will be generated through such partnerships" (p. 697). These newly formed transnational health organizations (TNHO) are defined as groups of people representing many different countries and ethnic backgrounds and having different cultural traditions and beliefs about health and health care. These organizations may be newly formed, or they may develop from organizations that already exist but decide to collaborate on certain health initiatives.

Increased collaboration between national and international health organizations clearly establishes the importance of considering how cultural differences impact working relationships. As new alliances and partnerships are formed and different cultural beliefs and values intersect, professionals in Organization Development (OD) must be prepared to work within, among, and between cultural value systems that are not only internal (organizational) but also external (national and ethnic). The primary focus of this paper is to examine the impact of ethnic cultures mixing in transnational organizations and alliances that form to address global health concerns. Specifically, this paper explores the need for OD professionals to develop an international mindset and then presents a reconceptualized model for action research based on cultural inquiry and transpection. Cultural implications for each step of the action research model (ARM) are explored and some cultural competencies for OD consultants are suggested.

An International Mind Set

Paige and Mestenhauser (1999) claims "Leadership in the 21st century will require more than new knowledge; it will require new ways of thinking" and suggested that all professional disciplines develop an international mind set (p. 501). Currently, the most common approach to internationalizing a discipline is simply to add knowledge on various cultural traditions. However, the authors claim that this manner of internationalizing is far too simplistic and does not result in a fundamental change to the discipline. They define internationalization as "a complex, multidimensional learning process that includes the integrative, intercultural, interdisciplinary, comparative transfer of knowledge-technology and the contextual, and global dimensions of knowledge construction" (p. 504). All of these elements work together to construct a new mental model of what all professional disciplines including OD seem to need in this global era of profound changes and interrelated, interdependent cultural systems. Internationally minded OD consultants still consider the internal organizational issues that require change but these consultants are also driven by higher goals such as peace, social justice, sustainable development, human rights, and international and intercultural collaboration (Paige & Mestenhauser, 1999).

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These goals seem particularly significant in the development of TNHO because the World Health Organization describes the following conditions as prerequisites for health: "freedom from the fear of war; equal opportunity for all; satisfaction of basic needs for food, water, and sanitation; education; decent housing; secure work and a useful role in society; and political will and public support" (Ruzek, Olesen & Clarke, 1997, p. 14).

The internationalization process is the focus of research conducted by Anderson and Skinner (1999). They claim that internationalizing a business is dynamic and fraught with uncertainty which often has negative consequences for small and medium-size organizations. Anderson and Skinner discovered that a significant factor in determining the degree of success is the extent to which the organization is ready to learn; they state, "Revision of underlying beliefs, assumptions and values held by members of the internationalizing company is crucial and the encouragement of learning, and the sharing of that learning within the organization, are fundamental for the effective operation of an international venture" (p. 236). In testing a four-stage model of the internationalization process, they conclude that participants inevitably experience the first three stages (prospecting, introduction, and consolidation) but that the fourth stage (re-orientation) is not inevitable. Re-orientation "requires a reconceptualization of the dominant logic and generative learning by the company as a whole" (p. 254). Therefore, one of the primary changes that OD consultants must help develop is a new mental model for the organization with which they work. A new mental model for TNHO seems particularly significant as members shift away from the concept of health within a cultural or geographic boundary and re-orient themselves toward the concept of global health.

For OD consultants working with TNHO, the transition from local thinker to global thinker must be deliberate and seems more complex than simply being culturally aware and sensitive. In an effort to learn what an international mind set means to OD, a cultural perspective will be applied to each step of an action research model (ARM). At the conclusion of this exploration, a clearer understanding of the international competencies for OD consultants will hopefully emerge.

An International Concept of the Action Research Model

Rothwell, Sullivan and McLean (1995) suggest an ARM that OD consultants can utilize when helping organizations cope with and adapt to change. The greatest benefits of this model are its open, participatory nature and its easy, flexible application. OD consultants working with TNHO must approach their work in an inquiring manner and the ARM frequently cycles through phases of gathering information to be used in planning. For OD consultants, the model also provides specific guidance that can easily be applied in different contexts without imposing a prescription for action. This flexibility acknowledges differences in organizational as well as ethnic cultures and allows those differences to create innovation without a restrictive structure. The following section of this paper explores cultural implications for each step of the ARM as originally described by Rothwell, Sullivan, and McLean (1995).

Entry and Start-Up

Rothwell, Sullivan and McLean (1995) described the first two steps in the ARM as a phase of inquiry. The OD consultant researches the organizations, as well as the context in which they operate, and discusses the demand for change with key decision-makers within the organization. The result is a "tentative, flexible, written plan for guiding the change effort" (p. 56). Initial contact with people in the organization is extremely important – and even more so when the cultural backgrounds differ as occurs in TNHO development. Two theoretical perspectives are particularly helpful in analyzing potential issues and conflicts during startup and entry: intergroup attribution theory and path dependence.

According to Ting-Toomey (1999), Intergroup Attribution Theory suggests that different social and cultural groups possess preconceived notions regarding characteristics of their own (in-group) and other (out-group) social groups. These preconceptions are based on "implicit assumptions, beliefs and categorizations of what human nature or human behavior is all about" (p. 152). Because of the uncertainty and heightened anxiety of working with strangers, attribution biases become prevalent in early encounters. For example, people often utilize negative stereotypes when interacting with out-group members and actively seek confirmation to substantiate those early judgments.

Intergroup Attribution Theory is important to OD consultants as they work in all phases of AR but seems especially significant in the early phase. First, OD professionals must be acutely aware of their own perceptions regarding in-group and out-group membership and must also be aware of their positionality in relation to all groups. OD professionals must also reflect on their prior interactions and experiences with people from the cultures with

whom they are working and carefully monitor how those past experiences impact the current situation. OD consultants must also recognize that when members of organizations from different ethnic groups/countries initially meet, the members' minds are already set in many ways. Unconscious biases and stereotypes will prevail unless OD consultants initiate activities to "undo" them. These activities must occur early in the ARM so stereotypes do not permanently establish themselves in the new relationships that form.

Another aspect to consider in entry and start-up pertains to the concept of path dependence as described by Eriksson, Majkgard, and Sharma (2000). Their research suggests that organizations' past experiences in the international market are critical to the knowledge they need when venturing into foreign markets (path dependence). The authors claim that the degree of cultural difference between the home and foreign market determines the amount of internationalization knowledge an organization needs. They also assert, "The initial steps in the internationalization process shape the business, institutional and internationalization knowledge the firms accumulate. The latter also forms the assumptions, beliefs and future absorption capacity [learning] of the internationalizing firm" (p. 30). Therefore, as members of TNHO begin working together, early experiences are very important to subsequent operations and activities.

OD consultants are key people in the initial phases of newly formed alliances between organizations. Educating organizations about internationalization process and transcultural competence needs to start early. Assessing prior experience with international organizations is also important at this stage. If a large cultural difference exists between members, then OD consultants must be particularly aware of the need for people to learn about cultural norms, customs, beliefs, and values in interpersonal interactions and health practices. All subsequent steps are dependent on how effectively OD consultants conduct the entry and startup phases when working among groups from different cultures.

Assessment and Feedback

The concept of cultural value orientation provides a helpful perspective for OD professionals to apply during all phases of ARM but is especially relevant during assessment and feedback. OD consultants employ a variety of data collecting techniques to formulate a better understanding of organizational issues affecting and being affected by the need for change. Cultural values will partially determine how the data is collected and what meaning is attached to the data. Therefore, in this phase of ARM, consultants must be aware of their own cultural values and assumptions as well as the various value orientations of the people involved. Finding assessment tools that reliably test value orientations seems an important part of assessment. Validity and reliability of the data and accuracy of the conclusions are dependent on an understanding of different cultural value orientations.

A classic framework of value orientations proposed by Kluckhohn and Strodtbeck (1961) provides a description of how ethnic cultures vary in their arrangement of complex principles "which give order and direction to the everflowing stream of human acts and thoughts as these relate to the solution of human problems" (p. 4). With an emphasis on problem solving, this framework seems particularly helpful for OD professionals working with TNHO. For example, according to Kluckhohn and Strodtbeck (1961), people vary in their primary orientation to relationships. All cultures have elements of individualism, family (lineality), and community (collaterality) as members develop relationships; however, certain cultures tend to favor one orientation over another. Cultural groups who primarily value individualism may be very willing to offer honest information to OD consultants in focus groups; whereas cultures favoring collaterality might be less likely to offer honest information in focus groups because their value orientation tends toward group cohesiveness. In addition to becoming aware of variations in value orientation among organization members, OD consultants must also be aware of their own value orientation and how values affect their choice of data gathering techniques. More research is required before accurate conclusions about how different cultural values impact the effectiveness of data gathering techniques can be drawn. In the meantime, value orientations can be a helpful guide for OD consultants when considering which techniques to use.

Data analysis following data gathering is another potential source of cultural bias. A degree of ethnocentrism will most likely be present, and OD consultants must be constantly aware of their positionality (race, class, gender, culture) in relation to the people on whom they are analyzing data. Tisdell (1998) discusses the concept of positionality in the classroom and claims that positionality affects what is seen and what is constructed as truth. To counteract the possibility of bias, she suggests seeing with a third eye which "is to recognize that the self constructs knowledge in relation to others, and both the self and others are situated and positioned in social structures where they are simultaneously privileged and oppressed" (p. 150).

OD consultants for TNHO must be constantly vigilant about their cultural positionality in order to avoid ethnocentric assumptions during data interpretation and analysis. For example, silence is often interpreted from a

Western perspective as a lack of "voice" which is metaphorical for lack of knowledge or empowerment. However, many cultural groups appreciate silence in a vastly different way, and the diversity in value orientation about silence could result in misinterpretation. When working with TNHO, consultants cannot assume they know what silence means; instead they must ask questions about what is "underneath silence" (Tisdell, 1998, p. 151).

Feedback follows data gathering and analysis. How OD consultants offer feedback to members of the organization is once again partially dependent on value orientations. In addition to the list of useful feedback characteristics proposed by Franklin (1995), OD consultants need to add a characteristic about cultural sensitivity. For example, feedback is offered using the principles of mindful intercultural communication. Mindfulness is the "readiness to shift one's frame of reference, the motivation to use new categories to understand cultural differences, and the preparedness to experiment with creative avenues of decision making" (Ting-Toomey, 1999, p. 46). Many cultural implications exist for the feedback phase. By remaining tentative about conclusions drawn from the data and actively seeking input from participants to explore new perspectives – especially cultural perspectives – OD consultants can become more effective in providing feedback to members of TNHO.

Action Planning

The primary perspective in the action planning phase of ARM is to be inclusive and encourage widespread participation especially during the initial stage of TNHO development. Multiple cultural and interdisciplinary frames of reference are necessary to compose an ethical and effective plan for change. As Eriksson, Johanson, Majkgard, and Sharma (2000) found in their study on knowledge development in the internationalization of businesses, when first going abroad organizations are likely to be ethnocentric "because their absorptive capacity [determined by past experience] is domestic-market based" (p. 319).

Members of TNHO are especially likely to start their work together from an ethnocentric viewpoint. Perspectives on concepts such as health and disease causality as well as who is entitled to provide care and what intervention strategies work effectively are derived from cultural values and norms. Lacking awareness of other cultural perspectives in the early phases will severely limit collaborative visioning and problem solving. OD consultants perform a vital role in creating safe environments and providing opportunities for members to comfortably discuss their cultural perspectives. In order to address global health issues, members of TNHO must recognize their own differences and then work toward incorporating multiple perspectives into meta-models for collective problem solving to improve the health of the world's people.

Bennett (1993) proposed a developmental model that depicts growth from ethnocentrism to cultural relativism; he describes the process of development as "the construction of reality as [people become] increasingly capable of accommodating cultural difference" (p. 24). Organizations by their very nature often attempt to instill commonality among members – perhaps a commonality of purpose through common norms and standards. Differences are sometimes overlooked as people within the organization strive toward achieving a common set of goals or missions. Thinking in terms of cultural differences and valuing diversity of traditions require a new mental model for organizations.

Adler (1980) describes "cultural synergies" as the differences that people bring to intercultural experiences. He claims that acknowledging cultural differences can potentially lead to better outcomes than if those differences are avoided. By creating a global mindset that accommodates cultural differences, OD consultants for TNHO can enhance development toward cultural relativity. Bennett (1993) offers several cultural adaptation strategies such as structuring opportunities for difference-seeking and promoting examination of profound cultural contrasts.

As people move toward cultural diversity and greater awareness of differences occurs, ethnic conflicts often emerge. Anticipating these conflicts ahead of time is an important consideration for OD consultants working with a TNHO. Palich and Gomez-Mejia (1999) claim that "Cultural diversity may indeed bring together divergent perspectives...but global firms may find that these benefits are more than offset by the drawbacks of unmanageable levels of diversity" (p. 15). Contrary to popular support for "value-in-diversity" the authors contend that global firms must exercise caution when entering diverse markets and at the very least must take into account the inevitability of cultural conflict. Palich and Gomez-Meijia (1999) state, "Since globalization requires managers to coordinate the efforts of groups from different national cultures, disproportionate levels of misunderstanding and conflict are likely to attend these efforts" (p. 13). OD consultants who work with TNHO need to implement strategies that prevent cultural clashes. They must also recognize the early signs of cultural conflicts and be prepared to provide the necessary leadership in managing them.

White and Rhodeback (1992) question the assumption that OD ethical standards for professional conduct are transferable to other countries. When researching cultural variation in analyzing and resolving ethical dilemmas, White and Rhodeback found significant cultural differences in OD professionals' perceptions of ethical consulting

behaviors; they state, "implicit in this difference is the potential for otherwise successful working relationship to be soured by a lack of sensitivity to a difference in expected standards of conduct" (p. 668). Both researchers conclude by imploring the OD profession to more explicitly integrate international diversity into the Code of Ethics.

The Preamble of the "Statement of Values and Ethics for Professionals in Organization and Human System Development" as reported by Rothwell, Sullivan and McLean (1995) clearly indicates that the authors of the Preamble recognize their Western perspective. The Preamble authors state, "Since this Statement has been developed from within the cultural perspective of the United States...we recognize that it includes concepts, beliefs, assumptions, and values unique to the country's culture" (p. 566). This awareness is a significant first step in acknowledging that cultural differences and conflict potential co-exist. Another significant step occurred as Aragon and Hatcher (2001) compiled a casebook for OD professionals to use as an "ethics and integrity resource" (p. 6). Perhaps, the next step is more research on the nature of cultural dilemmas that OD consultants encounter and effective methods of working through the dilemmas. For example, how are human rights interpreted within a collectivist versus an individualistic society? Should some ethical principles be universally applied? What methods are effective in helping transcultural groups manage conflict? Research of this nature could provide more guidance for OD consultants as they internationalize their mindsets and work globally.

OD Interventions

During the intervention phase all previously discussed concepts seem to converge. Mindful cultural communication, diverse value orientation awareness, conflict management, and intergroup attribution theory seem necessary in shaping the perspective of OD consultants during the intervention phase. Lau and Ngo (2001) who researched the effect of culture on OD interventions echo the complexity of this issue; they tested competing hypotheses by questioning whether the usage and effectiveness of OD interventions in multinational organizations are related to the organizational culture in which they occur (cultural influence) or the cultural context of the country-origin (isomorphic influence). The researchers discovered that the cultural adaptation issue "is much more complicated than it was thought...[and] that some OD interventions are culture-free and some are not" (p. 109). They conclude that the organizational culture perspective is more pertinent to the implementation of OD interventions and that the isomorphic (country-culture) view is better in understanding OD effectiveness.

The controversy of how much influence the country-culture has on OD interventions continues to be explored by some OD researchers. For example, Golembiewski (1993) compared the success rate of OD interventions in Western settings versus non-affluent countries. The results of his studies indicated that OD interventions in Western settings had a 41% success rate in achieving "substantial proportion of intended effects" whereas only a 16% success rate was reported in non-affluent settings (p. 1674). A 56% success rate was reported by non-affluent countries and a 43% success rate was reported by Western countries in the category of "some intended effects achieved" (p. 1674).

Golembiewski (1993) cautions against OD consultants being too restrained in implementing OD interventions in low-income countries; he argues that OD, by its very nature, is sensitive to cultural differences and that ARM is designed to assess and diagnose those differences. He asserts that "OD consultants can (and frequently do) make reasonable situational adjustments to the cultures in which they operate and that OD technology has powerful generic features that facilitate adaptation to the idiosyncrasies encountered in all organizations in all settings" (p. 1673). However, the low success rate of OD interventions in low-income countries must be addressed with more research as the OD profession internationalizes. This research would be particularly helpful to TNHO working on health issues where human lives are at greater risk if collaboration fails. Since many serious health risks exist in low-income countries, the importance of developing research-based OD interventions that work effectively cannot be overlooked. By avoiding assumptions about OD effectiveness in low-income countries and producing workable models, OD researchers could contribute significantly to correcting the large and complex health disparities that exist between low-income nations and the more economically developed countries.

Green (1993) described his experience as a non-governmental participant at a United Nations (UN) conference on aging. His observations led to several suggestions for OD consultants working toward global change. For example, he notes that the practice of Theory X and the centralization of decision-making are common in many nations abroad. Theory Y with its more participatory management practices is more novel – especially with developing countries (Green, 1993). This anecdotal report lends support to the argument that country-culture has an impact on OD practices and that OD consultants working with TNHO must consider how to most effectively work within a broad range of cultural contexts.

Although some OD researchers claim that cultural sensitivity is an inherent feature of OD, there seems to be a need to enhance the effectiveness of OD interventions in developing countries. In addition to deliberately applying

a cultural perspective to existing OD interventions and testing interventions in various cultural contexts, new interventions that deliberately acknowledge and bridge cultural differences must be developed and researched. Many diversity training techniques are available, and they often result in increased cultural awareness. However, culture should also be an integral part of system level interventions. Rather than being compartmentalized as a subject of training, culture could be woven into every aspect of OD intervention.

There appear to be no prescriptions for success when implementing OD interventions in TNHO. Therefore, when determining how to conduct interventions, OD consultants must consider multiple cultural contexts and how they impact the development of organizational culture as well as the many issues that pertain to cultural adjustment and firm effectiveness. Perhaps, the best guide is for consultants to proceed with interventions by using contingency planning which stresses flexibility, probablistic planning which accepts multiplicity and uncertainty, and futuristic planning which maintains a vision of possibilities. This planning needs to be accompanied by a spirit of inquiry, optimism, and confidence as OD consultants work to balance power among participants, plan effective ways to manage different cultural perspectives on global health concerns, and maintain hope in goal achievement.

Evaluation

In the evaluation phase of ARM described by Rothwell, Sullivan and McLean (1995), OD consultants return to data gathering except this time the data pertains to outcomes. A series of questions such as "what benefits have been achieved by implementing OD interventions" and "how are they valued by different cultures" need to be asked. Assuming a cultural perspective is integrated into the evaluation plan, the actual implementation of evaluation measures must also exemplify cultural sensitivity. Mindful cultural communication avoids bias in the interpretation of data, incorporates multiple ways to examine data, and conveys respect for differing values regarding outcomes. By exemplifying the continuous nature of evaluation, reflection-in-action is an effective perspective for OD consultants during this phase.

Schon (1987) discussed reflection-in-action as the process of fluid inquiry and continuous frame analysis; he describes how reflective practitioners are patient as they engage in reflective conversations with the situation allowing conclusions to be tentative as more perspectives are sought and continually incorporated into the emerging and ever changing situation. OD consultants engage in reflective practice to learn about the effect of interventions as well as the process for subsequent steps. Wide participation is assumed as multiple cultural frames are sought. As novel situations present themselves, reflective practitioners by carefully analyzing the subtle similarities in situations and the many shades of differences make wise use of past experience. Even though Schon (1987) does not specifically discuss the cultural implications of reflection-in-action, the process seems to be helpful in cross-cultural encounters. OD consultants working with TNHO need a reflective rather than just a technical process during evaluation. By its very nature, evaluation requires careful and complex thinking that usually occurs while the professional is in the situation. The next steps of ARM are dependent on this very important reflection.

Adoption and Separation

OD consultants have been planning this stage of ARM from the beginning. Two concepts seem pertinent for transcultural organizations – agency and community. Agency refers to the "ability of actors (persons, groups, organization) to make decisions and act out of their own interests," and community refers to the "participation of actors in interdependent relations" (Rousseau & Arthur, 1999, p. 8).

Transnational collaborators in health planning seem to need both concepts. OD consultants need to prepare representatives from different cultures to act partially out of their own national interest (agency) and out of an interest in the common good (global community). Once these concepts are balanced, adoption and separation can occur more successfully. Having prepared members of a cross cultural group to appreciate both threads of similarity and shades of difference, to interact effectively, to work synergistically, to manage conflict productively, and to maintain resilience in an ever-changing context, OD consultants can slowly withdraw their help. How this separation is best managed in TNHO requires research since there is currently a lack of published studies that examine the separation phase of action research. More information about how cultural value orientations impact adoption and separation and about which techniques work best is also needed. This type of research would advance an international mindset for OD consultants.

Competencies for OD Professionals in International Work

Wigglesworth (1995) describes several competencies for professionals working in international OD. These include competencies such as self-awareness, linking skills, interaction skills, and tolerance of ambiguity. He describes various researchers who have studied cultural differences and presents some excellent suggestions on how OD

professionals should behave in international situations. However, an international mindset seems to require a different way of thinking – not just an enhanced set of skills. Yershova, DeJaeghere, and Mestenhauser (2000) suggest that an international mindset requires "thinking not as usual" (p. 39). This section of the paper suggests three "not as usual" thinking competencies for OD consultants who work with transnational organizations.

Comparative thinking is the first competency. Yershova, DeJaeghere, and Mestenhauser (2000) state, "International experts and consultants are known to make comparative assumptions about problems that appear similar to those of their own cultures, and to offer instant solutions without first analyzing these problems" (p. 57). Comparative thinking is the process of relating what is known to what is unknown and discovering and analyzing assumptions about both. Comparative thinking is a method used in a variety of contexts – as explanations, persuasions, and understandings. The key feature in sound comparative thinking is a careful exploration of the cultural elements being compared.

In the multicultural context etic and emic perspectives need to be compared. The etic perspective is viewing a culture from the outside; the emic perspective is viewing the culture from within (Cutz & Chandler, 2000). When thinking comparatively, OD consultants should be able to shift emic and etic perspectives as the situation demands. Without comparative thinking, people tend to use the emic perspective about their own culture and etic perspective about other cultures. However, working effectively across cultures requires an ability to explore, compare and analyze both etic and emic perspectives of multiple participants. Reflection, correlation, cultural transpection, and imagination characterize comparative thinking.

Contingency thinking is a second competency. The complexity of working across cultures requires a certain confidence in the unknown. Those who can think about multiple, interacting, and cascading variables are better able to work transnationally. Similar to systems thinking, contingency thinking requires OD consultants to see the "big picture" and recognize that outcomes are partially dependent on unknown factors. Unforeseen problems will arise and are viewed as new opportunities for novel discoveries and improved planning. Flexibility, openness, and creativity characterize contingency thinking.

Global thinking is the third competency and requires OD consultants to consider how worldwide economic, political, and sociocultural trends impact transnational organizations. The world is viewed as a singular, complex system where decisions influence the future of the world community. Microlevel analysis is consistently contextualized as OD consultants consider macrolevel impact. Citizenship in the world community requires an analysis of issues as they impact all people – not just those (such as the wealthy and educated) who have a voice but also the meekest and weakest citizens. Individual and community responsibility is seen in light of social justice and transcultural consciousness. Connection, context, equity, and empathy characterize global thinking.

Conclusion

ARM as described by Rothwell, Sullivan, and McLean (1995) is a very helpful process for OD consultants but seems to require greater acknowledgement of cultural differences. Researchers who believe culture is quietly inherent in the current practice of OD seem to overlook the complexity and tenacity of cultural values. More research about how differences in cultural values impact transnational organization development is needed in order to improve the health of the world's people. More explicit emphasis on cultural values throughout the action research process is required for TNHO to discover effective ways to change the significant health disparities that exist between developed countries and low income countries. More attention to OD interventions that facilitate transnational collaboration is necessary for analyzing and addressing specific global health concerns such as environmental degradation and food production, civil unrest and the suffering of refugees, and economic and health care access disparities among the world's people. As the OD profession enters the global era, an international mind set seems important. In addition to the well publicized list of OD competencies, thinking "not as usual" in the form of comparative, contingency, and global thinking is required – especially if the OD profession wants to exert effective leadership in making this world a more socially just, environmentally healthy and tranquil place to live.

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The Design and Development of an Instrument to Measure Organizational Efficacy.

James G. Bohn
The University of Wisconsin–Milwaukee

Organizational Efficacy is the perceived ability of an organization to work together and persist regardless of obstacles. While researchers have recommended a tool to assess Organizational Efficacy, to date no instrument makes this claim. This research developed the Bohn Organizational Efficacy Scale, using two studies to assess validity and reliability. The studies revealed a three factor solution as predicted by efficacy theory, .93 alpha coefficient, and strong correlations with customer focus and employee satisfaction.

Keywords: Organization, Efficacy, Measurement.

Organizations require empirically based tools to effectively analyze the reasons for poor or strong performance (Connor & Lake, 1994). This research developed and tested a tool to measure Organizational Efficacy, which has been theorized as an aspect of organizational performance (Bandura, 1997). The purpose for understanding organizational efficacy is to assess organizations that are low in efficacy, and develop means to improve efficacy and thus improve performance. The aggregated performance accomplishments of every employee in an organization drive organizational performance (Bandura, 1997, p. 472). In other words, organizational performance is more than the sum of its parts, it is the output of coordinated effort among many people. Shamir, (1990) in his analysis of employee motivation within corporations, made the following statement:

> In the case of collective tasks whose accomplishment depends on collective efforts, it is not rational to make an effort if collective efficacy is perceived to be low, because no matter how strong the perceived relationship between rewards and collective accomplishments, the chances of such accomplishment and therefore of obtaining rewards, are perceived to be low. Hence, a cognitive calculative formulation of collectivistic motivation must include the individual's subjective probability that the collective efforts will result in collective (organizational, departmental, or team) accomplishment" (p. 316).

Thus aggregated individual perceptions of the organizations' capabilities are critical to the overall success and performance of the entity. Tools for measuring that capability have been elusive to this point. Observers of organizations know there are some organizations have a "feel" about them that exudes efficacy, where a "can do" attitude pervades the halls of the organization (Kotter & Heskett, 1992). We know that other organizations have less of the attitude, where people have less "fight" in them (Ryan & Oestrich, 1998). Conversely, in organizations that appear highly efficacious, people believe they can do anything set before them (Kotter & Heskett, 1992). These organizations are not afraid to take risks (Truske, 1999). Does this belief of organizational efficacy necessarily translate into financial results? At this time we cannot assert a direct causal relationship between the two factors, but we do know that self-efficacy is a cognitive apparatus which supports behavior (Reeve, 1996). Thus the overarching thesis of organizational efficacy theory is if strong self-efficacy beliefs sustain individual persistence (Sadri & Robertson, 1993), then perhaps organizational efficacy beliefs will sustain organizational persistence to accomplish organizational goals and increased organizational performance.

How Are Organizations Analyzed Today?

Organizations study culture, teamwork, employee benefits and other factors to influence performance (Truske, 1999) but an overall metric of organizational efficacy in the business community is not currently available. Organizations are analyzed for their morale, their climate, their culture (Robbins, 1998).

They have also been analyzed for their capacity to learn (Senge, 1990), and their ability to create Organization Based Esteem (Pierce, Gardner, Cummings & Dunham, 1989). These components by themselves are useful, and have value. Yet it seems logical that a coherent, unifying sociopsychological theory that subsumes these elements and which has stood the test of time would be useful in analyzing organizations at a much higher level.

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Theoretical Framework

An overarching organizational research question that continues to this day is "What contributes to organizational performance?" Perhaps the question is being asked incorrectly, and thus is giving us a tangential answer. Perhaps the question should be "What gives an organization the *capacity* to perform at peak levels?" Thus an instrument to assess employee perceptions of organizational efficacy would be useful. As far back as 1987, Marilyn Gist argued for this concept, "By using a valid instrument, research may show that group perceptions of efficacy are related to group performance" (Gist, 1987, p. 482). Thus the theoretical approach used to develop the instrument in this study is efficacy theory. Albert Bandura wrote in 1997, "Analyses of the determinants of perceived organizational efficacy can make a valuable contribution to the understanding of organizational performance (p. 476)." Using Bandura's theory as a structure for organizational analysis seems fitting, since both the therapeutic, educational and management literature for the past three decades abound with empirically validated references to self-efficacy. Bandura (1997), reported that "Although perceived collective efficacy is widely recognized to be highly important to a full understanding of organizational functioning, it has been the subject of little research" (1997, p. 468). Recent forays in the educational community by Schwarzer, Schmitz & Daytner (1999) however, are showing success in measuring collective teacher efficacy. Yet an instrument to assess organizational efficacy designed specifically for the context of business organizations has been lacking in the literature thus far.

Self-efficacy

A brief explanation of self-efficacy is essential for understanding organizational efficacy. Self-efficacy is a belief in one's ability to generate effort to overcome obstacles and persist in the performance of tasks or activities (Bandura, 1986). Bandura tells us that "Among the different aspects of self-knowledge, perhaps none is more influential in people's lives than conceptions of their personal efficacy" (1986, p. 390). Gist adds (1992) "Self-efficacy may be thought of as a superordinate judgment of performance capability that is induced by the assimilation and integration of multiple performance determinants" (p. 188). Self-efficacy is central to the motivational core of human action. There is a proven relationship between efficacy and action (Bandura, 1980). Gist emphasized this when she wrote "The predictive validity of self-efficacy is well established" (1992, p. 187). Efficacy is an empirically proven psychological construct. Yet efficacy goes beyond the individual; it also influences groups of individuals, including teams (Spink, 1990; Carron, Widmeyer, & Brawley, 1985) and organizations, which are the focus of this instrument.

Organizational Efficacy

The focus in organizational milieus has been the individual, to the exclusion of understanding how individuals perceive the collective efficacy of the organization. Yet people are not islands in organizations: they act together, and they have a sense of the capabilities of others to perform work (Zaccaro, et al, 1995, p. 305). People have a sense of being part of something larger than themselves. In organizations with high levels of organizational efficacy, people should function differently, work differently, and the outcomes should be different than organizations where organizational efficacy is low. Many definitions of collective efficacy echo that statement. "Collective self-efficacy deals with a group's beliefs in its competence for successful action" (Schwarzer, et al, 1999). Zaccaro, Blair, Peterson & Zazanis (1995) define collective efficacy as "a sense of collective competence shared among individuals when allocating, coordinating, and integrating their resources in a successful concerted response to specific situational demands" (p. 309). It also involves individuals' perceptions regarding the group's performance capabilities (Kozub & McDonnell, 2000). Finally, "Collective efficacy refers to individual's assessments of their group's collective ability to perform job-related behaviors..." (Riggs, et al, 1994, p. 794).

In other words, people can sense the capability of a group to perform actions. We sum up with a statement from Bandura's recent work (2000) on the subject, which reflects his thinking over the past 15 years as follows. "People's shared beliefs in their collective efficacy influence the types of futures they seek to achieve through collective action, how well they use their resources, how much effort they put into their group endeavor, their staying power when collective efforts fail to produce quick results or meet forcible opposition, and the vulnerability to discouragement that can beset people taking on tough social problems" (p. 76). In this research, collective efficacy is refined in the context of organizations, hence the term organizational efficacy. Though we are limited by

the space constraints of this paper, the OD/HRD literature supports the following three factors of organizational efficacy:

Sense of Mission or Purpose – Do we know where we're going?
Sense of Collective Capability – Can we work together to accomplish the goal?
Sense of Resilience – Are we capable to stay the course in the face of obstacles?

Organizational Efficacy is defined as follows:

> ***Organizational efficacy (OE) is a generative capacity within an organization to cope effectively with the demands, challenges, stressors, and opportunities it encounters within the business environment. It exists as an aggregated judgement of an organization's individual members about their (1) collective capabilities, (2) mission or purpose, and (3) a sense of resilience.***

Research Question #1

Can an instrument be developed to measure the construct of organizational efficacy in a reliable and valid manner, consistent with the proven principles of instrument development?

Construction of the Bohn Organizational Efficacy Scale

The construction and validation of the BOES followed the general sequential procedures for developing self-report scales of individual differences (Jackson, 1971; Jackson & Paunonen, 1980). Items are rationally derived from theory; the item pool is reduced and refined through various empirical procedures that maximize internal consistency and convergent and divergent validity while minimizing the influence of response styles associated with item variability, agreement-disagreement wording, gender bias, and other factors. 37 items were written for the BOES utilizing these procedures. They were derived from multiple sources including: the authors' extensive conversations with people in organizations (Pierce, Gardner, Cummings, & Dunham, 1989), open-ended sentence completion exercises (Bandura, 1997, p. 43), organizational observations (Kraut, 1996), and interviews (Edwards, Thomas, Rosenfeld, &Booth-Kewley, 1997) focusing on the three proposed factors of organizational efficacy: Sense of Mission; Sense of Collective Capability; and Sense of Resilience.

Sample Items

While the entire Organizational Efficacy Scale is not presented, one item from each theorized factor is presented to give readers a sense of the questionnaire, and the Likert scale used in the research.

Sense of COLLECTIVE CAPABILITY

1. People in this organization can take on any challenge.

6	5	4	3	2	1
Strongly agree	Agree	Agree somewhat	Disagree somewhat	Disagree	Strongly Disagree

Sense of MISSION/FUTURE

2. This company has a strong vision of the future.

Sense of RESILIENCE

3. During an economic downturn, this organization will come out strong.

Research Question #2

Will the instrument demonstrate convergent validity with existing instruments that measure collective efficacy, specifically Schwarzer's Teacher Collective Efficacy scale (1999) and Riggs, et al (1994) Collective Efficacy Scale?

Two existing scales were used to assess convergent validity: Schwarzer's Collective Teacher Efficacy Scale (adapted) and Riggs Collective Efficacy Belief Scale. Schwarzer, et al, has conducted research on collective teacher efficacy which items were reworded to derive convergent validity with organizational efficacy items. Schwarzer's scale (1999) had a Cronbach's alpha of .91, and .92, respectively. Test-retest reliability resulted in .77 (N = 197) for the period of one year. Riggs, et al (1994) developed a Collective Efficacy Belief Scale, with alpha scale reliabilities

ranging from .85-.88. It was hypothesized that the Organizational Efficacy Questionnaire would correlate highly with the items from both these scales.

Research Question #3

Will the instrument demonstrate discriminant validity with constructs that are dissimilar, specifically self-efficacy, as measured by Schwarzer, and Organization Based Esteem, as measured by Pierce, et al (1989)?

Individual Self-efficacy

The generalized self-efficacy scale of Ralf Schwarzer at the Freie Universitat of Berlin was used to assess discriminant reliability (1997; 2000. The German version of this scale was originally developed by Matthias Jerusalem and Ralf Schwarzer in 1981, first as a 20-item version and later as a reduced 10-item version (Jerusalem & Schwarzer, 1986, 1992; Schwarzer & Jerusalem, 1989). It has typically yielded internal consistencies between alpha = .75 and .90. All the items from the Schwarzer self-efficacy scale were included in the testing of the organizational efficacy instrument, and aggregated as one individual efficacy score per respondent.

Organization Based Esteem

It was hypothesized that organizational efficacy is not organization-based self-esteem (Pierce, Gardner, Cummings & Dunham, 1989). Thus all the items on the organization based self-esteem scale were used to check discriminant reliability. All the items from this scale were included in the testing of the organizational efficacy instrument, and aggregated as one Organization Based Esteem score per respondent.

Research Question #4

Will the instrument show criterion validity with measures normally used in a business setting, specifically Customer Satisfaction, as measured by Kotter and Heskett (1992), and Workplace/Job Satisfaction as measured by Buckingham and Coffman, (1999)?

Customer Satisfaction

Kotter & Heskett, (1992) studied 207 organizations, ranging from airlines (Northwest) to breweries (Coors), to car manufacturers (Nissan) and concluded that adaptive cultures have a "feeling of confidence: the members believe, without a doubt, that they can effectively manage whatever new problems and opportunities come their way" (p.44-45). This is a statement of organizational efficacy. Thus one item on customer focus was used to assess criterion validity.

Workplace/Job Satisfaction

Items measuring employee satisfaction are critical predictive factors, since it seems employees would be satisfied in an organization that is highly efficacious. Thus we employed two questions from Buckingham & Coffman's questionnaire (1999) specific to employee satisfaction.

While the research may be challenged for common method variance because the same method used to measure organizational efficacy was also used to customer and employee satisfaction, there is evidence from the literature (Dawes, 1999) that subjective evaluations of performance correlate strongly (.51, $p=<.05$) with objective evaluations of performance.

Study #1

A study was conducted from February through April of 2001 to test the discriminant, convergent, and criterion validity of the scale. Eight companies were contacted for the study, only seven participated in the study. A total of 432 questionnaires were distributed, and 142 were returned, yielding a return rate of 32%. The companies are in the southeast Wisconsin-Northern Illinois Area of the United States. Guaranteed anonymity requires that the companies not be listed in this research. The seven companies yielded 30 different departments, ranging from Accounting to Warehouse. Gender response was nearly even with 46% female and 51% male, and 3% refused to identify gender. The majority of people in the study were Caucasian 78.9% with Hispanic 15.1% as the second largest category.

Results of Convergent and Discriminant Validity from Study #1

Table 1 depicts correlations between the *Bohn Organizational Efficacy Scale (BOES)* developed in this research, against two measures of convergent validity, and two measures of discriminant validity.

Table 1. *Correlations to test convergent and discriminant validity of BOES*

	BOES	SCHWARZER CTEFF	ORG ESTEEM	SELF-EFFICACY	RIGGS COLLEFF
BOES	1.00	.857	.387	-.072	.613
CTEFF	.857	1.000	.492	.094	.514
OESTEEM	.387	.492	1.000	.481	.341
SELF-EFF	-.072	.094	.487	1.000	-.014
COLLEFF	.613	.514	.341	-.014	1.000

All correlations are significant at the 0.01 level (2 tailed).

All items on the scales were computed together as one score for each participant. The BOES converges strongly with both the Schwarzer Collective Teacher Efficacy Scale (r=.857, p=<.01) and the Riggs Collective Efficacy scale (r=.613; p=<.01). There is a modest correlation (r=.387; p=<.01) between Organization Based Esteem (ORGESTEEM) and the BOES, indicating some overlap in the constructs. There is no correlation at all between SELFEFF (Self-efficacy) and the Organizational Efficacy Questionnaire, as predicted.

Criterion Measures

Table 2. *Correlations between Customer Focus, Organizational Efficacy, and Organization Based Esteem*

Q50 – To what extent does this organization have a focus on customers?

	Q50	BOES	OrgEsteem
Q50	1.000	.564	.183
BOES	.564	1.000	.387
OrgEsteem	.183	.387	1.000

Table 2 shows the correlation between the BOES and Customer Focus, as compared to Organization based Esteem and Customer Focus. Customer Focus is more highly correlated with Organizational Efficacy (r=.564; p=<.01) than with Organization Based Esteem (r=.183; p=<.01). A z-test showed that the difference is statistically significant.

Table 3. *Correlations between the BOES and Workplace Satisfaction; Job Satisfaction*

Q53 - How satisfied are you with your place o f work? Q54 – At work I get to do what I do best every day.

	BOES	OrgEsteem	Q53	Q54
BOES	1.000	.387	.659	.519
OrgEsteem	.387	1.000	.487	.599
Q53	.659	.487	1.000	.629
Q54	.519	.599	.629	1.000

Table 3 shows the relationships between the Buckingham and Coffman questions and the BOES. Satisfaction with the place of work (Q53) is more highly correlated with BOES (r=.659; p=<.01) than with Organization Based Esteem. Conversely, (Q54) "At work I get to do what I do best every day." is more highly correlated with Organization Based Esteem (r=.599; p=<.01), than with the BOES. This is to be expected, since esteem is more job specific and individual. However when employees assess workplace satisfaction they take into account the organizational efficacy of the entire system.

Conclusions from Study #1

Study #1 showed that the Organizational Efficacy Questionnaire (BOES) was not measuring Organization Based Esteem or Self-Efficacy. In addition, the criterion measures of Customer Focus, Employee Satisfaction with workplace, and Employee Satisfaction with Job showed expected relationships.

Study #2

The second study was composed of 619 respondents from seven companies, with 75% male and 25% female. 89.6% were Caucasian, 4.0% African American, and 1.8% Hispanic. They represented 26 different departments, and 5 different roles, ranging from executive to line worker. In study #2, the 23 item scale was presented to seven different companies to access a large enough sample to conduct proper factor analysis, which requires a minimum of 10 respondents per item. The response of 619 people exceeds the 230 needed to justify the factor analysis. The BOES was reduced to 17 items after further statistical analysis.

Alpha Levels and Factor Analysis

Alpha level for the entire Bohn Organizational Efficacy Scale (recoded) was .93, Sense of Mission/Future subscale (.80); Q11, 14, 15, 16, Sense of Collective Capability Subscale (.92); Q1-7, 9,10 and Sense of Resilience Subscale (.88) Q18-21. Thus all the subscales and the overall scale meet or exceed .8 alpha.

Table 4. *Factor analysis of the 17 item Bohn Organizational Efficacy Scale demonstrating the three factors of Organizational Efficacy*

Rotated Component Matrix [a]

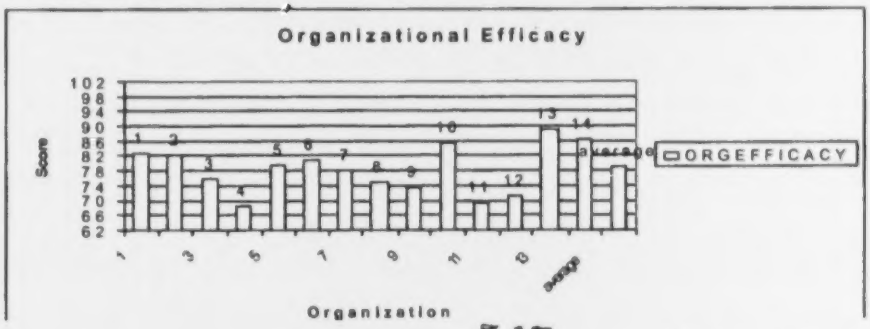
	Component		
	1	2	3
Q1	.719	-.184	.141
Q2	.701	-.141	.346
Q3	.621	-.268	.278
Q4	.797	-.196	.169
Q5	.800	-.178	.142
Q6	.816	-.206	.157
Q7	.762	-7.85E-02	.251
Q9	.620	-9.49E-02	.280
Q10	.674	-.167	.264
Q11	.421	-.290	.604
Q14	.298	-.319	.674
Q15	.181	-4.60E-02	.754
Q16	.295	-.163	.722
Q18	-.214	.790	-.260
Q19	-.131	.890	-5.73E-02
Q20	-.177	.862	-.152
Q21	-.236	.754	-.162

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Table 4 shows that Items 1-7, 9 and 10 comprise factor 1 (COLLECTIVE CAPABILITY); Items 11, and 14-16 comprise factor 2 (SENSE OF MISSION OR FUTURE); and items 18-21 comprise factor 3 (SENSE OF RESILIENCE). Factor 1 derived an Eigenvalue of 7.898, accounting for 47% of the variance; Factor 2 Eigenvalue = 2.021, 11.9% of the variance; and Factor 3 Eigenvalue = 1.128, 6.63% of the variance. The three factor solution was validated.

Figure 1. Organizational Efficacy Across 14 Companies

Figure 1 shows the total Organizational Efficacy Scores for all 14 companies in the study. As can be seen from



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the bar chart, the scores vary widely across companies, though no company reached the maximum score of 102 (17 items x a maximum score of 6 per item). Company 13 has the best overall score, while Company 4 shows the greatest need for improvement. Table 5 shows that Organization accounts for nearly 16% of the variation in organizational efficacy, and the F ratio is significant at the .001 level.

Table 5. *ANOVA – Organizational Efficacy Across 14 Organizations*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18018.797	13	1386.061	11.095	.000
Intercept	1703703.404	1	1703703.404	13637.905	.000
Organization	18018.797	13	1386.061	11.095	.000
Error	86197.652	690	124.924		
Total	4510846.000	704			
Corrected Total	104216.449	703			

a R Squared = .173 (Adjusted R Squared = .157)

Findings and Conclusions

The combined studies showed that Organizational Efficacy can be measured, and that the instrument showed expected discriminant and convergent reliability. The instrument derived three factors as theorized from the literature, specifically Sense of Mission or Future, Sense of Collective Capability, and Sense of Resilience. The alpha levels for the overall scale and the individual scales of each factor were at or above .80. Common criterion variables for business, including both Customer Focus and Employee Satisfaction were shown to be positively correlated with the BOES. Table 6 shows a moderately strong ($r=.540$; $p<.01$) correlation between perceived Organizational Efficacy and perceived Customer Focus, a strong ($r=.702$; $p<.01$) correlation between perceived Organizational Efficacy and Workplace Satisfaction, and a moderate ($r=.486$; $p<.01$) correlation between perceived Organizational Efficacy and Job Satisfaction. *These are significant and important findings for all organizations interested in employee perceptions of customer satisfaction and workplace satisfaction.*

Table 6. *Correlations of Organizational Efficacy with Customer Focus, Workplace Satisfaction, and Employee Satisfaction for 14 organizations.*

		ORG EFFICACY	Customer Focus	Workplace Sat	Job Sat
ORG EFFICACY	**Pearson Correlation**	**1.000**	**.540**	**.702**	**.486**
	Sig. (2-tailed)	.	.000	.000	.000
	N	704	697	694	700
Customer Focus	Pearson Correlation	.540	1.000	.388	.311
	Sig. (2-tailed)	.000	.	.000	.000
	N	697	751	741	747
Workplace Sat	Pearson Correlation	.702	.388	1.000	.602
	Sig. (2-tailed)	.000	.000	.	.000
	N	694	741	751	751
Job Satisfaction	Pearson Correlation	.486	.311	.602	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	700	747	751	757

** *Correlation is significant at the 0.01 level (2-tailed).*

Other statistical analyses showed statistical significant differences between organizations at the organizational level, but not at the department level. Thus the 17 item *Bohn Organizational Efficacy Scale* has passed the fundamental statistical tests for reliability and validity, and positively answered the four research questions.

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The Relationship of Individualism and Collectivism to Perceptions of Interpersonal Trust in a Global Consulting Firm

Ghazala Ovaice
University of Illinois at Urbana-Champaign

This study explored the national culture values (e.g., cultural syndrome) of Individualism and Collectivism and their relationship to interpersonal trust which was defined as consisting of Reliability, Openness, Concern, and Competence.Cultural syndrome was found to have a significant relationship with perceptions of trust in the manager and in the work team. The major implication is for the building of awareness around the notion that trust in workplace relations varies when considering a multinational workforce.

Key Words: Individualism, Collectivism, Interpersonal Trust

The notion of a global workplace is one that is commonplace in today's business environment. Organizations are realizing that their workforce is rapidly becoming multinational due to increases in globalization, mergers and acquisitions, and joint ventures (Marquardt & Engel, 1993). As organizations continue to employ workers from different national cultures both domestically and internationally, HRD is now pressed with a new dilemma in improving performance at the individual, team or organizational levels with a global focus. That is, HRD professionals are now being asked to consider effects of cultural tendencies (which includes values and beliefs) on their performance improvement initiatives. Relationship building is foundational to successful business performance. Interpersonal trust is one workplace dimension that should be viewed as the baseline for successful relationship building, especially in a global environment

Summary of the Problem

Trust is an interpersonal dynamic that has received a great deal of attention in the organizational sciences recently (Kramer, 1999). While there is research looking at the moderators, mediators, and outcomes of the construct of trust, a large gap exists in the trust literature regarding the antecedents of trust; especially the cultural dimensions as possible antecedents. The limited extant literature on culture as an antecedent of trust inhibits HRD professional's ability to effectively analyze, design, develop, implement, evaluate and manage performance improvement or promote organizational learning in a global arena. That is, in order to continuously improve performance and learning in an efficient and effective manner, empirical organizational research is needed to clearly understand the implications of cultural differences in interpersonal dynamics.

Purpose of the Study and Research Questions

The purpose of this research was to investigate the relationship, if any, between culture and trust in a multinational work setting. Culture (e.g., Individualism and Collectivism) and trust (e.g., Reliability, Openness, Concern, and Competence) were operationalized into several subcomponents and it was the relationship and/or interaction between these variables that this study was interested in determining. Trust was examined as relating to two primary workplace relationships: between employees and their primary manager as well as between employees and their primary work team. The research questions guiding this study were as follows: (1) Does a significant relationship exist between cultural syndrome and propensity to trust?, (2) Does a significant relationship exist between cultural syndrome and a trustor's tendencies toward various components of trust in the primary manager?, and (3) Does a significant relationship exist between cultural syndrome and a trustor's tendencies toward various components of trust in the primary work team?

Studying the cultural syndromes of employees in a multinational organization is an attempt to make the best multinational uses of varying employee dispositions (Davison, 1994). The ability to understand relationships between cultural syndromes (i.e., collectivistic and individualistic tendencies) to the construct of trust is vital. As organizations continue to move into different countries and set-up offices around the world, the need to understand varying cultural perspectives on trust becomes paramount. Trust has been found to be an important aspect of relationships since it leads to "a constructive dialogue and co-operation in problem-solving, facilitates goal clarification, and serves as a basis of commitment to carry out agreements (Schurr and Ozannem, 1985, in Shaffer & O'Hara, 1995, pp. 9)." Consequently, HRD professionals must understand the cross-cultural implications of trust

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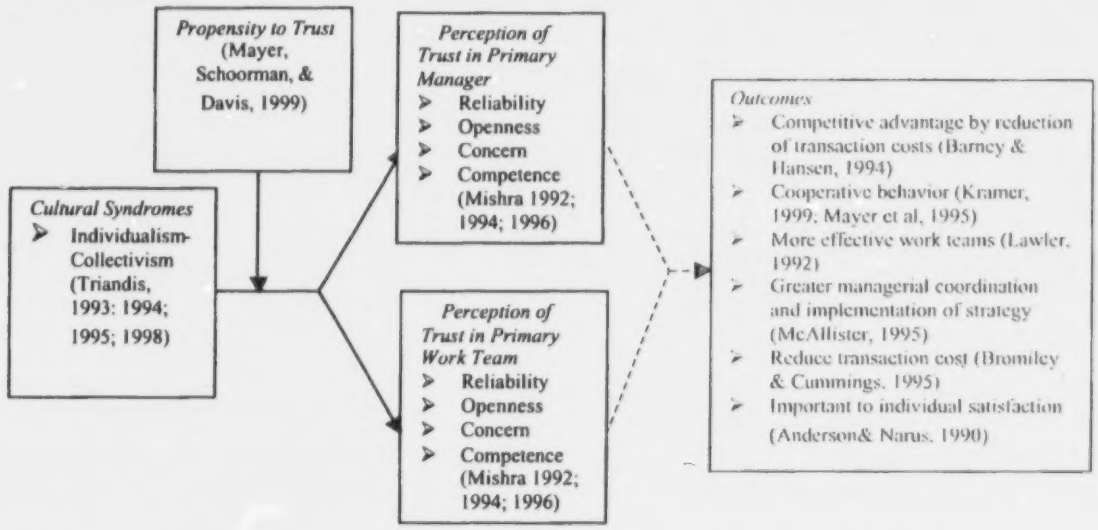
both within and between organizations, especially in such unstable environments as that of a recently merged or acquiesced corporate culture. In order for such partnerships to be successful employees must feel a sense of trust with their work group, their manager, and the organization as a whole. In attempting to maximize performance and human potential of such employees, HRD professionals will need to be knowledgeable of the relationship between culture and trust amongst work related values; for it is these same work related values that will ultimately influence the productivity and performance of an organization.

Theoretical Framework

Figure 1. Cultural framework for trust.


Propensity to Trust
(Mayer, Schoorman, & Davis, 1999)
Cultural Syndromes
Individualism-Collectivism (Triandis, 1993; 1994; 1995; 1998)
Perception of Trust in Primary Manager
Reliability
Openness
Concern
Competence (Mishra 1992; 1994; 1996)
Perception of Trust in Primary Work Team
Reliability
Openness
Concern
Competence (Mishra 1992; 1994; 1996)
Outcomes
Competitive advantage by reduction of transaction costs (Barney & Hansen, 1994)
Cooperative behavior (Kramer, 1999; Mayer et al, 1995)
More effective work teams (Lawler, 1992)
Greater managerial coordination and implementation of strategy (McAllister, 1995)
Reduce transaction cost (Bromiley & Cummings, 1995)
Important to individual satisfaction (Anderson& Narus, 1990)

Building on Ajzen & Fishbein (1980) Theory of Reasoned Action and their decision model, a few trust researchers (i.e., Currall & Judge 1995 and McKnight, Cummings & Chervany 1998) have suggested frameworks for intentions to trust. These researchers purport that an individual's attitudes, beliefs, and cognitions will shape his intention to trust, ultimately moderating whether that individual engages in trusting behavior. Similarly, this study proposes that an individual's cultural syndrome (i.e., their individualist or collectivist tendencies) serves as an antecedent to their propensity to trust (see Figure 1). That propensity to trust will then moderate their perception of (i.e., their intent to) trust based on the individual's knowledge of the trustor's reliability, openness, concern, and competence. This perception of trust in the primary manager or primary work team then results in specific organizational outcomes as suggested in the trust literature (see Anderson & Nazurus, 1990; Barney & Hansen, 1994; Bromiley & Cummings, 1995; Kramer, 1999; Lawler, 1992; McAllister, 1995; Mayer, et al., 1995). This study investigate the relationship of culture as an antecedent to trust. The relationship between trust and organizational outcomes was out of the scope of this study but is depicted in this model to illustrate the overall picture of interpersonal trust in the workplace.

Critique of Relevant Literature

Limited extant literature exists regarding the relationship between cultural syndrome and trust. Shaffer and O'Hara (1995) found that individuals from low Individualism countries would express less trust of a service professional than persons from high Individualism countries. Consequently, Shaffer and O'Hara (1995) have found that trust varies along low and high Individualism countries. Shaffer and O'Hara (1995) argued that differences in perceptions of trust may be partially attributed to national differences in the bases for trust by utilizing Hofstede's (1991) argument that in small power distance and Individualism countries "the main sources of power are one's formal position, one's assumed expertise, and one's ability to give rewards (p. 12)." Also, based on their findings Shaffer and O'Hara (1995) concluded that for clients from small power distance/high individualistic countries "providing evidence to establish one's expertise, competency, and ethical orientation during initial encounters may enhance perceptions of trust (p. 12)." Shaffer & O'Hara (1995) have found that high power distance and high Collectivism show a strong distinction between in-groups and out-groups. They go on to state that in these countries

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trust is essentially based on in-group membership. Hence, in "collectivistic countries in-group membership and ultimately trust may take longer to achieve... In individualistic countries business is conducted with whole companies, in collectivistic countries business is conducted with individuals (who are members of one's in-group; therefore the relationship is then with one person and not the entire company p. 13)."

Shaffer and O'Hara's (1995) discussion of cultural syndromes and trust is focused on a country level analysis of Individualist and Collectivist countries. Other studies have looked at the relationship of cultural syndromes and trust at the individual level of analysis. For example, Yamagishi & Yamagishi (1994) studied trust between American and Japanese citizens. They found that Japanese citizens reported lower levels of trust compared with their American counterparts. This appears to be a rather surprising finding given the expectation that Japanese culture is often identified with "close, stable, long-term social relations (Kramer, 1999, p. 10)." However, Yamagishi & Yamagishi (1994) noted that in actuality Japanese culture could be distinguished by high stability whereas American culture does not have a comparable sense of stability and social uncertainty. Therefore, when in a situation of instability Americans are more concerned with reducing the stability and uncertainty through personal knowledge of the trustor as well as reputational information, whereas the Japanese rely on assurance of predicted stability of interpersonal and inter-organizational relationships (Kramer, 1999).

Nicol (1994), in his study of American and Mexican students found that trust is in fact a multidimensional concept that serves as a foundation for assessing cultural influence on trust. Nicol found the application of the trust concept "to differ systematically along cultural lines (p. 101)." Specifically, he found that the more collectivist culture would place a higher emphasis on the relationship dimension of trust, while the more individualistic culture placed a higher emphasis on the institutional agent and caution dimensions of trust.

Methodology

Smith Consulting consults globally on human resources issues. They have representation in all geographic regions around the world. Given the global focus of the organization, Smith was well suited as the population from which the sample was drawn. The unit of analysis was the individual employee. The sample was a stratified sample representing various global locations (including the U.S.) and multiple lines of business. A total of 627 employees (from over two dozen countries around the world) responded to an online survey resulting in a 67% response rate. Twenty-four surveys were dropped because they were deemed unusable. The cultural syndrome (e.g., Individualist or Collectivist tendencies) for each of the respondents was then determined based on their responses to the INDCOL scale items. Cultural syndrome was determined by the category in which they had the highest total score Thus, amongst the remaining 603 respondents, there were a total of 393 collectivists and 210 individualists.

The stratified random sample was considered to have yielded respondents who were representative of the firm's demographic make-up. Demographic data were pulled from Smith's internal employee database in order to describe the respondents. Overall, there were more females (56.8%) than males (43.2%) amongst respondents. Age data were only available for North American employees. Therefore, of the 425 North American employees that responded to the survey almost half were between the ages of 25 and 35 (49.6% of respondents). Concurrent with the overall respondents, there were more collectivists in all age groups than individualists. Of those respondents who were in management roles, there were more collectivist (61.1%) managers than individualists (38.9%). The total percentage of respondents in management roles (11.9%) was considered slightly smaller than the overall percentage of Smith employees in management roles, but within sampling error. Employee tenure data indicated that two-thirds of respondents had only been employed at the firm for less than 3 years (66.6%). Almost one-third of these respondents had been at the firm for less than 1 year (29%). These percentages are considered to be somewhat higher than the tenure of overall Smith population. However, the differences fall within normal sampling error and do not affect the generalizability of study results.

Items from three existing instruments were utilized for this study. First, Triandis' (1995) 32-item INDCOL measured Individualism and Collectivism at the individual level (as opposed to the cultural level) with published alpha coefficients of .71-.80 (Singelis, Triandis, Bhawuk, and Gelfand, 1995; Probst, Carnevale, & Triandis, 1999). Second, Mishra & Mishra's (1994) 16-item measure of trust looked at four components of trust (Competence, Reliability, Openness, and Concern) with a published alpha coefficient of .93. Third, Mayer et al.'s (1999) 8 questions on propensity to trust were adapted for the purposes of this study with published alpha coefficients of .55 - .66 . Finally, the instrument also included a demographic section (for data that could not be obtained through the employment database system at Smith). The three instruments plus the demographic instrument were converted into one web-based questionnaire. In addition, the instrument was translated into Spanish, Portuguese, and French.

Each one of Smith's global locations had access to the internet and was able to link to the questionnaire through a hyperlink in an email message sent to each participant. (It is important to note that in this organization, online data collection was considered common practice as all employee surveys were administered in this fashion.) Once at the website, participants were given directions for filling out the instrument, as well as the option to pick the language in which they chose to complete the questionnaire. Once participants submitted the instrument, data were automatically transported into a My SQL database on the University of Illinois server and then converted into an SPSS database for data analysis. Descriptive and inferential statistics were then used to analyze the data from the questionnaire. The primary method for data analysis was the use of a Multi-variate Analysis of Variance (MANOVA) with follow-up Regression Analysis, MANCOVA, and Repeated Measures Analysis.

Limitations of Research

As with most research studies, there were some limitations. The Latin American (47% compared to 70%, 72%, and 66% in the Asia-Pacific, Europe, and North American regions, respectively) portion of the sample revealed lower response rates compared to other regions. This lower response rate was explained, however, due to traditional low response rates from the region in all employee surveys, limited local support for such initiatives, and varying organizational structures (e.g., having different ownership structures due to joint ventures or acquisitions). Also, while all Latin American employees have access to a computer they do not all necessarily have their own computer; thus accessibility to technology could also be a factor. Another limitation to the study is the low reliability of the Mayer and Davis (1999) propensity to trust items (.53 alpha coefficient). However, published reliability data for the Propensity to Trust items found Cronbach alphas ranging from .55 to .66 (Mayer & Davis, 1999). Finally, this study was limited to employee *perceptions* of trust in their primary manager and primary work team; thus, implications are limited to these workplace relationships.

Results

The first research question addressed whether a significant relationship existed between a trustor's propensity to trust and their cultural syndrome. Propensity to Trust, the dependent variable, has been defined as an inherent willingness to trust (Schoorman, Mayer, & Davis, 1996). The trust literature suggests that individuals differ in their disposition to trust (McKnight, Cummings, & Chervany, 1998; Mayer, Schoorman, & Davis, 1999), that is, the likelihood that they will display trust in a given situation. The independent variable, Cultural Syndrome, has been defined as the elements of culture that are organized around a central theme. Specifically, Triandis (1995) described it as an individual's tendency towards Individualism or Collectivism. The central theme of Individualism is organized around the individual as the unit of analysis and the orientation is to the self. The central theme of Collectivism is organized around the team as the unit of analysis and the orientation is to the group. Findings from an ANOVA suggest there was no significant relationship between cultural syndrome and a trustor's Propensity to Trust ($F=2.25$; $p=.135$). Therefore, Individualist or Collectivists tendencies do not effect disposition to trust.

Research question two addressed the relationship between cultural syndrome and trust in the *primary manager*. The dependent variables for question two were the four trust components (Mishra, 1992): Reliability, Openness, Concern, and Competence. Again, the independent variable was cultural syndrome. Cultural syndrome was found to have a significant relationship with all trust variables when looking at trust in the primary manager (Reliability $F=10.44$; $p=.001$; Openness $F=11.56$; $p=.001$; Concern $F=8.14$; $p=.005$; and Competence $F=9.56$; $p=.002$). Research question three addressed the relationship between cultural syndrome and trust in the *primary work team*. The dependent variables for research question three, as in research question two, were the four trust components; the independent variable was cultural syndrome. Again, cultural syndrome was found to have a significant relationship with all trust variables when looking at trust in the primary work team (Reliability $F=12.81$; $p=.000$; Openness $F=16.00$; $p=.000$; Concern $F=11.73$; $p=.001$; and Competence $F=12.29$; $p=.001$).

Overall there appeared to be a larger number of Collectivists ($n=393$) than Individualists ($n=210$) amongst respondents (even from those countries that have been traditionally identified as Individualist). Triandis (1995) believed that individuals actually have tendencies toward both Individualism and Collectivism and that these constructs are, in fact, contextual. Triandis' explanation lends itself to the conclusion that this particular global consulting firm is potentially promoting a collectivistic organization culture that, in turn, could potentially be overriding some traditional national culture value in the context of this particular workplace.

Table 1. *Means and Standard Deviations for Trust in Manager and Team by Cultural Syndrome*

Variable	Collectivists		Individualists	
Primary Manager				
	Mean	SD	Mean	SD
Reliability	22.64	4.79	21.24	5.51
Openness	22.21	4.76	20.72	5.72
Concern	22.37	4.65	21.19	5.23
Competence	23.29	4.50	22.05	5.02
Primary Work Team				
Reliability	21.52	4.31	20.22	4.08
Openness	21.16	4.38	19.65	4.48
Concern	19.69	4.45	18.38	4.39
Competence	21.71	4.35	20.47	4.23

Table 2. *Comparison of Mean Scores between Cultural Syndrome and Trust Variables*

Cultural Syndrome	Trust Components	Mean	Std. Error	Lower Bound	Upper Bound
Collectivists					
	Reliability	22.08	.20	21.69	22.46
	Openness	21.[illegible]	.20	21.29	22.08
	Concern	2[illegible]	.19	20.64	21.40
	Competence	22.[illegible]	.19	22.13	22.87
Individualists					
	Reliability	21.9[illegible]	.22	21.51	22.36
	Openness	21.47	.22	21.04	21.90
	Concern	21.78	.21	21.37	22.19
	Competence	22.67	.20	22.27	23.06

Through a comparison of mean scores for each component of trust, findings from this study could be further explained to trust in the primary manager (see Tables 1 for means and standard deviations for trust in the primary manager and primary work team by cultural syndrome). First, Collectivists had overall higher perceptions of trusts than Individualists on all four trust variables across workplace relationships (e.g., primary manager and primary work team). Second, the Competence variable had the highest rating for trust in the primary manager and primary work team. Third, Openness rated the lowest for trust in the primary manager while Concern rated the lowest for trust in the primary work team. However, fourth, Individualists and Collectivists have the greatest differences on trusting their manager's and team member's Openness characteristics; with Collectivists having more trust than Individualists on their primary manager's and team member's Openness. Fifth, trust in the primary manager had overall higher mean scores in comparison to trust in the primary work team. Sixth, trust in the manager rated higher than trust in the work team regardless of cultural syndrome or trust component (see Table 1). Often times, managers are the individuals in an organization that hold power due to their formal position, have some sort of expertise, and have the ability to give rewards. Therefore, by virtue of their role in the organization, they may command trust from their subordinates. However, this does not mean that trust in the manager is certain or unconditional rather the suggestion is that, given the nature of their relationship with employees, managers tend to be perceived as having higher Reliability, Openness, Concern, and Competence compared to an employee's team members. The role of management in an organization can account for some of this behavior. Creed and Miles (1996) have suggested that management actually institutionalize their collective view of trust and trustworthiness by enacting the organizational context for exchanges, communication, and fair dealings.

Finally, there was a main effect (see Table 2) for trust along the various trust variables where the highest mean score was for Competence(C 22.50; I 21.26), followed by Reliability (C 22.08; 20.73), Openness (C 21.02; I 20.19), than Concern (C 21.02; I 19.78). Thus, though Collectivists emphasize relationship building, in general, it is evident that decisions to trust are based more on cognitive aspects of trust (e.g., Competence and Reliability) than on affective or relational aspects of trust (as evidenced by lower ratings for Openness and Concern). Similady,

Individualists predictably placed emphasis on cognitive aspects of trust. Therefore, manager and team member ability, knowledge and skills as well as their performance over time effect will effect employee perceptions of trust.

Discussion

Implications for Practice: Managers and HRD Professionals

Given the findings of this study, several implications arise for managers as well as for both HRD and OD practioners. Findings from this study revealed that Collectivists had overall higher trust scores than Individualists and there were more Collectivists in the sample than Individualists (even from traditionally Individualists countries). The major implication here is that organizations are fostering and promoting open cultures, rewarding teamwork, information sharing. Thus, organizations are advocating collectivist behavior. Managers then need to be cognizant of the differences between individualists and collectivists, as well as foster an open culture in order to achiever higher levels of mutual trust. Findings from this study also revealed that Competence and Reliability tend to have higher ratings then Concern and Openness when looking at trust in managers and teams. Therefore, managers need to not only continually develop their own knowledge, skills, and competencies but also foster that continuous learning environment with their workforce (thus, enhancing the Competence component of trust). Consistent behavior over time by managers who "walk the talk", will likely result in employees who perceive their managers as being more trustworthy due in part by setting examples of consistent, reliable performance and behavior. In a related concept, managers must be aware of cultural variances on perceptions of trust when considering internal communications. For example, it is important to consider communicating competence and reliability up front to individuals with whom they embark in a trusting relationship.

In reference to trust and culture awareness on the individual level, managers also need to understand the effect of organizational trust and organization culture. As Creed and Miles (1996) have stated, "management institutionalized its collective view of trust and trustworthiness by enacting organizational contexts for intramural exchanges, communication, and fair dealing (p.35)." Hence, the extent of trusting behavior exhibited by a manager is likely to be reciprocated by his employees. Consequently, managers then need to understand their work team culture as well as organizational culture in relation to how they support and develop the various components of trust especially in the context of a multinational workplace. As Triandis (1995) has noted, individuals have tendencies toward both Individualism and Collectivism, yet in instances were the organizational culture is strong enough, it can override the national in the workplace context. Furthermore, trust has been proven to being context specific as well (Kramer, 1999). Therefore, managers have a real opportunity to establish and cultivate a trusting organizational culture through open communication, consistent and competent behavior, awareness and knowledge of both trust and culture variances (especially as discussed in this study), and effective relationship building. Accordingly, Barney and Hansen (1994) suggested that trust can affect transaction costs consequently providing a source of competitive advantage. In addition, Davis, Schoorman, Mayer, & Tan (2000) indicate that employee trust for the general manager is an internal organization characteristic that provides a competitive advantage for the firm.

Just as with managers, several implications exist for HRD professionals in relation to the findings of this study. The implications discussed above can be considered a micro-level discussion regarding trust and culture. Implications for HRD professionals will take a macro-level view in respect to the entire organization. Managing the change, learning, and performance of a multinational workforce is grounded in effective relationships with HRD clients. Trust, as noted earlier, can be considered to be foundational to the successes of these relationships. Given the multinational nature of the workforce, HRD professionals would be better served through first enhancing their own learning and development around the areas of trust and culture. Findings from this study also indicated that at Smith Consulting, there were more Collectivists than Individualists (even from those countries that would traditionally be considered individualist). The practical implication for HRD/OD practitioners is then to (1) consider the cues in their organizational infrastructure that support such a group oriented environment (i.e., there may be a great deal of collective behavior that is being reinforced by pay structures, work design, etc), (2) ascertain whether such an environment is strategically aligned with goals and vision of HR as well as that of the larger organization, and (3) determine whether continuing to foster collective behavior (e.g., orientation is to the group as opposed to the self, employees are interdependent, and group goals drive behavior) is the most appropriate culture to cultivate given the organization's mission, structure, and culture. It is not in the best interest of HRD professionals to simply assume that a collective environment is the best environment, especially bearing in mind that individuals actually have tendencies toward both Individualism and Collectivism. Such considerations will then have implications for work design, pay structures, and development initiatives, to name a few.

HRD professionals who understand that trust in managers and work teams varies by cultural syndrome (e.g.,

collectivists have higher trust in workplace relationships), can than work with their lines of business and internal clients to consider communication, management and team development, collaboration and satisfaction issues. As a result, they will have the potential to effect cooperation, problems solving, and facilitate goal clarification (Schurr and Ozannem, 1985, in Shaffer & O'Hara, 1995). For example, cultural differences depending on cultural context and job context can effect methods of training with specific implications for the rigor of training, cognitive involvement and participation of the audience, status of the trainer, and trainer competencies (Thornhill, 1993). These training design, development, and delivery factors fall into the competence and reliability components of trust. Thus, awareness and skills around the cultural aspects of trust building can enhance an HRD professional's effectiveness by establishing trust early in the relationship through highlighting competent and reliable behavior.

An HRD professional's role is often to understand and anticipate the pulse of an organization. Awareness, cognizance, and skills around the organizational dynamics of interpersonal trust and culture will allow HRD professionals to better serve their ever changing organizations. This holds true especially when considering the unstable organization cultures of newly merged or acquired firms, dealing with changes in the external environment, as well as for new organizations that are starting to make their mark. In all of these organizational structures trust is critical. Specifically, HRD professional can work with their internal clients to plan for changing structures through successful establishment and maintenance of trusting work relationship, advise clients on development opportunities (especially for global managers and expatriate employees) in the areas of cultural awareness), and potentially work with executives and leaders in the firm to foster an organization culture that essentially "brands" trust as a value.

Implications for Future Research

The findings from this study point to several implications for future research. First, are implications for theory building research that focuses on developing a new reliable Propensity to Trust instrument. Researchers have purported that Propensity to Trust is an antecedent or even moderator to trust (Mayer, Schoorman, & Davis, 1995; McKnight, Cummings, & Chervany, 1998). Yet, Propensity to Trust was the only dependent variable that did not have any significant differences between Individualists and Collectivists. Coupled with the creation of a new instrument, is the need to explain the potential mediating relationship of Propensity to Trust between cultural syndrome and trust in the manager or work team. In addition, this study found a significant relationship between cultural syndrome and trust in the primary manager as well as primary work team. Future research should consider in depth exploration of one or two of the trust components at a time (e.g., concern or competence) for the development of a model and/or theory of cultural based trust. Implications for applied research include further investigating the differences between trust in the manager and trust in the work team (as well as other workplace relationships). This study looked at perceptions of trust in a given moment. Future research should look at the relationship of cultural syndrome in actual trust building as the natural next step in this strand of literature. Several organizational dynamics (e.g., teamwork, cooperation, decision making, satisfaction, performance etc) have already been proven to be antecedents, moderators, mediators, and outcomes of trust. However, these existing findings need to be further investigated with the effect of cultural syndrome on these relationships. This study was a quantitative study. The findings from this study and future research could be enhanced with support from more qualitative or naturalistic findings. The purpose of this research was first to establish that a relationship does, in fact, exist between cultural syndrome and interpersonal trust. Future research should then consider other research methods when investigating this phenomena. Finally, the population for this study was a company with a strong corporate culture. Hence, the ability to replicate these findings in a manufacturing environment or that of a new product development team, for example, must be considered. Corporate culture, industry, and external environments all have the power to effect employee perceptions of trust. Yet, the nuances of how and to what extent differences in perceptions of trust could arise based on these moderating variables prove an intriguing question for future research especially when coupled with variances in cultural syndrome.

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The Effect of Organizational Support, Management Support, and Peer Support on Transfer of Training

Susan E. Cromwell, Ph.D.
Judith A. Kolb, Ph.D.
The Pennsylvania State University

The intent of this study was to examine three specific work environment factors (organizational support, management support, and peer support) that affect transfer of training in a supervisory skills training program at one- month, six- month, and one-year points. The findings indicate a positive correlation between management support and transfer of knowledge and skills at the one-year time frame.

Keywords: Transfer of Training, Management Support, Organizational Support

HRD professionals continue to struggle with the reasons why a higher percentage of the skills and knowledge acquired during training programs do not transfer to the work environment and why transfer appears to diminish over time. Many organizations spend a significant amount of time and money on training. It was estimated that in 1998 the average United States employer spent well over 10% of payroll on education and training (Bassi & Ahlstrand, 2000). Yet, in one study, researchers found that HRD professionals believed that only 40% of the program content of a management development program was transferred to the work environment immediately after the program ended, about 25% was still being applied six months later, and a mere 15% was still being used at the end of one year (Newstrom, 1986). To a large extent, HRD practitioners have emphasized and developed sophisticated delivery devices at the expense of building the critical connection between the training site and the work environment (Brinkerhoff & Montesino, 1995).

A significant amount of research has been conducted to identify the effects of supervisory behavior on the level of productivity in an organization. After research identifies effective supervisory behaviors, training programs are designed and developed to teach supervisors and managers the skills and knowledge they need to know to increase employee productivity, job satisfaction, and organizational commitment. Many individual and organizational factors affect transfer of this training. Factors include individual motivation of trainees, training program design and delivery, organizational climate, and the person to whom the trainee reports.

There have been several efforts to expand the training perspective (Tannenbaum & Yukl, 1992). As early as 1980 (Wexley & Latham), "probability of transfer" was mentioned. Researchers (Baldwin & Magjuka, 1991; Hicks & Klimoski, 1987; Noe & Schmitt, 1986) have recognized the importance of several environmental characteristics and have examined variables outside the immediate training program that may be important to the success of the training effort. Broad and Newstrom (1992) identified barriers to transfer and discussed strategies to address these barriers. Factors affecting transfer include individual trainee characteristics, training program design and delivery, and work environment factors such as organizational support, trainee supervisor support, and peer support. Work environment factors influencing transfer of training are the focus of the study reported here.

Although there are several definitions of transfer climate, we draw on Broad and Newstrom (1992), Goldstein (1993), and Baldwin and Ford (1988) to define transfer climate as work environment factors perceived by trainees to encourage or discourage their use of knowledge, skills, and abilities learned in training on the job. Case studies reported by Broad (1997) indicate an increased emphasis by companies on building a climate that supports training transfer. Several researchers (Holton, Bates, Seyler, & Carvalho, 1997; Kozlowski & Salas, 1997; Rouiller & Goldstein, 1993) have examined specific aspects of transfer climate.

Baldwin and Magjuka (1991) examined the effects of three organizational "signals" on subsequent training outcomes. The pre-training signals examined were course information provided to trainees, accountability to the supervisor, and program status (mandatory or voluntary). Their study showed that when trainees received relevant information before the training program, recognized that they would be responsible for learning, and perceived the training to be mandatory, the trainees reported greater intentions to transfer the learning back to their jobs.

Another work environment factor that influences transfer is support of the trainee's supervisor (Broad, 1982; Huczynski & Lewis, 1980; Michalak, 1981; Nadler, 1971; Tannenbaum & Yukl, 1992; Zemke & Gunkler, 1985). Tangible and/or perceived support of the manager can be influenced before and after the training intervention.

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Cohen (1990) found that employees were more motivated if their supervisors were supportive and if attendance is perceived to be voluntary rather than mandatory.

In today's team-centered work environment, co-worker support also might be important for transfer of training. Although considerable interest has been focused on supervisory support, less has centered on peer or co-worker support. Pea (1987) found that perceptions of support from both supervisors and co-workers contributed to transfer of training. Bates, Holton, Seyler, and Carvalho (2000) found that peer support was a significant predictor of learning transfer. Ford et al. (1992) found that work group support was relevant for affecting the opportunity to perform and a significant predictor in the performance of more complex and difficult tasks.

Understanding the variables that influence transfer of training can assist HRD professionals, managers, and organizations in selecting the appropriate techniques for facilitating the application of newly learned skills, knowledge and behaviors back on the job. The intent of the study reported here was to examine the work environment factors that affect transfer of training in a supervisory skills training program. If barriers to the transfer process are identified and supervisors are able to utilize and apply a higher percentage of knowledge and skills, then the potential exists for increased rate of return on the time and money invested in such training.

Research Questions

RQ1: What are the differences between each of the following work environment factors: organizational support, management support, informal peer support, and use of a formal peer support network, and perceived transfer of training?

RQ2: What are the differences between work environment factors and perceived transfer of training at the following points of time: one month, six months, and one year after completion of a supervisory skills training program?

RQ3: What similarities and differences exist in the perceptions of managers and trainees regarding organizational support, management support, and transfer of training?

Methodology

Sample

Seventy-five front-line supervisors from one unit of a large northeastern university participated in this study. This target group was selected because at the time of the study all front-line supervisors in this unit had completed a supervisory skills training program within the past year. The range of supervisory experience within this group ranged from less than one year (1.6%) to more than 20 years of experience (11.1%). Trainees were nominated either by their department head or through self-nomination and represented a cross section of colleges and administrative units throughout the university. In this unit, the trainees serve as peers to each other.

Procedures

Two questionnaires were used to examine the transfer of key skills emphasized in the supervisory training program and the perceived amount of management, peer, and organizational support given to the trainee regarding transferring skills into the work environment. Transfer behaviors were assessed using an instrument with a 6-point Likert-type scale ranging from a low of 0 (not at all) to a high of 5 (very frequently). The instrument was modified with permission from one developed by Rothwell (1996). Readers wanting a copy of the questionnaire should contact the first author.

Questionnaires were administered at meetings that were held at times convenient for trainees. Trainees were given the questionnaires and asked to return them to the researcher at the end of the meetings. A similar approach was used with each trainee's supervisor. The information gained was used to measure perceptual differences between the amounts of support received/given.

The data analysis for this study was done using quantitative statistical techniques. The statistical analysis was completed through applied statistics and SPSS. ANOVAs and correlations were conducted relevant to trainees' perceived use of the knowledge and skills learned during training, perceived level of support by peers, and managers, and perceived level of organizational support, and use of the peer support network to enhance the transfer process. All short answer responses were analyzed using open-coding techniques (Strauss & Corbin, 1990).

In addition, following the open-coding guidelines (Strauss & Corbin, 1990), clusters of items within the questionnaire were identified. The clusters identified were performance feedback, coaching, rewards and

recognition, and follow-up. Analysis of the clusters was accomplished using ANOVAs and correlations to determine the trainee's perceived level of support.

Limitations

This study was a study of perceptions. Perceptions of transfer of training may not equate to actual use of skills on the job. Second, data collected on a specific group of employees working in a union environment may have influenced the results of the study. Last, the design of the study called for the creation of sub-groups and clusters within categories, which reduced the n for several analyses.

Results and Findings

Research Question 1. What are the differences between each of the following work environment factors: organizational support, management support, informal peer support, and use of a formal peer support network and perceived transfer of training?

Transfer of training level for application of knowledge and skills was grouped as follows: Low (<40%); Moderate (≥ 41% to 80%), and High (>80%). The rating scale measuring application of skills ranged from 1 --not at all to 6--most of the time. Table 1 presents the mean, standard deviation and ANOVA results for work environment factors.

Table 1. *Means, Standard Deviations and ANOVA Results for Work Environment Factors by Perceived Transfer Level for Application of Knowledge and Skills*

Work Environment Factor by Level of Application	n	M	SD	F[a]	p
Organizational Support	46	2.674	.994	4.62	.015
Low	5	1.520	1.069		
Moderate	34	2.771	.883		
High	7	3.029	1.026		
Management Support	53	2.604	1.392	9.79	.000
Low	6	.694	.481		
Moderate	39	2.721	1.281		
High	8	3.465	1.126		
Peer Support	57	2.330	1.306	8.163	.001
Low	6	.650	.742		
Moderate	43	2.419	1.214		
High	8	3.113	1.113		
Peer Support Network	57	1.061	1.003	4.063	.023
Low	6	.167	.408		
Moderate	43	1.081	1.029		
High	8	1.625	.720		

Note. Low(<40%), moderate(41- 80%), and high (>80%) groupings of perceived application of knowledge and skills [a] Sheffe post hoc analysis revealed significant differences exist within organizational support, management support, and peer support between the low and moderate application groups and between the low and high application groups for all four factors. No significant differences exist between the moderate and high application groups for the four work environment factors.

Significant differences were found in transfer of training between groups in organizational support, management support, peer support, and in peer support network. The Scheffe post hoc test was used to identify areas of specific differences. For the four work environment factors, the high level of application group had significantly higher means than did the low application group. Trainees who reported receiving higher levels of organizational, management, and peer support also reported applying, to a higher extent, the knowledge and skills learned in the supervisory training program.

The organizational support and management support factors were examined by clusters. The three clusters examined for organizational support were performance feedback, coaching, and rewards. The four clusters examined for management support were performance feedback, coaching, rewards, and follow-up. The Scheffe post hoc analysis revealed significance difference in the organizational support cluster of coaching between the low and high application groups and in the organizational cluster of rewards between the low and moderate application groups. The Scheffe post hoc analysis revealed significance difference in the management support clusters of performance feedback, coaching, rewards and follow-up between the low and moderate application groups and the low and high application groups.

Specifically, trainees who reported receiving a higher level of support (performance feedback, coaching, and rewards) from the organization and a higher level of support (performance feedback, coaching, rewards, and follow-up) from their supervisors also reported a higher level of transfer of training.

Research Question 2. What are the differences between work environment factors and perceived transfer of training at the following points of time: one month, six months, and one year after completion of a supervisory skills training program?

Significant differences were found between application groups in organizational support, management support, and peer support only at the one-year time interval. The Scheffe post hoc test was used to identify specific areas of difference. For each of the work environment factors (organizational support, management support and peer support) the high level of application group had significantly higher means than did the low application group. No significant differences were found between groups in the peer support network.

For organizational support, the high application group reported an overall mean of 2.60 (SD = .608) as compared to the mean of .93 (SD = .862) for the low application group. For management support, the high application group reported an overall mean of 2.99 (SD = 1.18) as compared to the mean of .44 (SD = .509) for the low application group. For peer support, the high application group reported an overall mean of 2.90 (SD = 1.30) as compared to the mean of .007 (SD =.116) for the low application group.

The investigators examined specific clusters relative to time --one month, six months and one year-by perceived transfer of training. Again, only at the one-year time frame was the relationship significant between trainees reporting receiving higher levels of support and trainees reporting higher transfer of training.

Research Question 3. What Similarities and Differences Exist in the Perceptions of Managers and Trainees regarding Organizational Support, Management Support, and Transfer of Training?

The summary index for the three variables reflects the combined perception of application of skills (17 statements from survey), management support (18 statements from survey) and organizational support (10 statements from survey). No significant differences were found between the perceptions of managers and trainees regarding organizational support, management support, and transfer of training (See Table 2).

Management support was the only variable that approached statistical significance (p = .072). In the management support clusters, no significant differences were found between the perceptions of managers and trainees regarding the performance feedback, rewards, and follow-up clusters. The management support coaching cluster was the only variable that was statistically significant (p = .001). For the management support coaching cluster trainees reported an overall mean of 2.88 (SD = 1.43) as compared to the mean of 3.78 (SD = .732) for the managers.

Analysis of the data revealed no significant differences between the perceptions of managers and trainees regarding transfer of training and two of the work environment factors: organizational support and management support. No significant differences were found between the perceptions of managers and trainees regarding organizational support clusters and transfer of training. In the management support clusters, no significant differences were found between the perceptions of managers and trainees regarding the performance feedback, rewards, and follow-up clusters. The management support coaching cluster was the only variable that was statistically significant (p = .001). For the management support coaching cluster, trainees reported an overall mean of 2.88 (SD = 1.43) as compared to the mean of 3.78 (SD = .732) for the managers.

Table 2. T Test Results Comparing the Perceptions of Managers and Trainees Regarding Organizational Support, Management Support, and Transfer of Training by Cluster

Cluster	n	M	SD	F	Sig (2-tailed)
Organizational Support					
Performance Management Cluster					
Trainees	62	3.21	1.18	.070	.698
Managers	18	3.33	1.20		
Coaching Cluster					
Trainees	48	2.52	1.17	.354	.900
Managers	16	2.56	1.09		
Rewards Cluster					
Trainees	60	2.25	1.08	.569	.960
Managers	18	2.24	.82		
Management Support					
Performance Feedback Cluster					
Trainees	58	2.58	1.45	4.051	.126
Managers	17	3.08	1.05		
Coaching Cluster					
Trainees	59	2.88	1.43	12.21	.001
Managers	18	3.78	.732		
Rewards Cluster					
Trainees	59	2.68	1.45	.976	.104
Managers	18	3.31	1.31		
Follow-up Cluster					
Trainees	61	1.79	1.46	2.801	.206
Managers	18	2.28	1.24		

The examination of clusters relative to similarities and differences in the perceptions of managers and trainees regarding the two work environment factors revealed no significant differences in the organizational support clusters. In the management support cluster, coaching was the only variable that was significant. In the coaching cluster, managers perceived that the level of coaching given was significantly higher than that perceived by trainees.

Conclusions and Recommendations

Trainees who reported receiving higher levels of support in the work environment indicated they were applying, to a higher extent, the knowledge and skills they learned in the supervisory training program. In addition, certain support actions by the organization and management appear to provide a higher level of application, knowledge, and skills than others. More specifically, the results suggest that particular actions such as coaching may play a significant role in the transfer of training.

Empirical research has been limited regarding the effect of peer support and transfer of training. The results of this study indicate that peer support does influence transfer of training. Trainees who perceived higher levels of peer support throughout the training program indicated they were applying, to a higher extent, the newly learned knowledge and skills. Peers in the organization under study completed the supervisory training program in a short time frame (one year), so trainees were able to share and apply the information learned more readily. In addition, supervisors who attended the program may have served as supervisors to others who attended and thus, were able to provided support both as a peer to others and as a manager. However, results suggest that the utilization of the peer support network did not affect transfer of training.

The results also reveal that the time element is an important factor to consider when measuring a trainee's application of knowledge and skills and perceived support. No difference occurred during the one-month and six-month periods. Limited research has been done examining the effects of work environment factors on the transfer process over longer periods. Several possibilities exist as to why differences were revealed only at the one-year time frame. If trainees did not have opportunities to utilize the knowledge and skills when they first completed the training program, then trainees might perceive they were not supported by the organization, their supervisor, or their peers due to the fact that other priorities may have infringed on the opportunity to use the skills. In addition,

organizational incentives, such as promotional opportunities or salary incentives may have more impact at the one-year time frame than at the one-month time period.

The results of this study reveal that no significant differences exist between trainees and managers regarding two of the work environment factors: organization support and management support. It was interesting to find that when clusters were examined relative to similarities and differences, differences did exist in the management support coaching cluster. Managers perceived that the level of coaching given was significantly higher than what was perceived by the trainees. One possible explanation for the fact that no differences were found in the organizational support clusters and management support clusters of performance feedback, reward, and follow-up is due to the small sample size and the fact that 70% the managers who responded to the survey had also participated in the supervisory training program.

Implications for HRD

Evidence exists that work environment factors support transfer of training. It is recommended that HRD professionals focus not only on the individual trainee and training program content, but also on organizational support factors that influence transfer. Organizations should take steps to assure that full support is given to professional development efforts. In order to identify whether or not an organization is supportive of professional development efforts, HRD professionals first may need to assess the transfer climate.

The significance of management support and its effect on transfer provides strong support for implementation of processes that will assist managers in collaborating with trainees as they participate in training programs. In the study, the importance of coaching by the manager enhanced the application of knowledge and skills. A technique that could be utilized includes requiring trainees to meet regularly with their managers to discuss action plans and on-the-job application of skills. Another technique that could be used involves structuring pre-training course sessions for managers, where managers could learn about the content of training courses being provided for their direct reports and actions managers might take to support trainees throughout the training program.

The finding that peer support affects transfer of training has implications for HRD professionals. While further research is needed in this area, support mechanisms can be developed to enhance peer support. In this study, the use of a peer support network did not prove to be significant; however, the concept of providing such a mechanism for peers to interact, share ideas and information may be useful it the network were structured differently. One idea is to establish peer group meetings after the training is over. This would provide peers the opportunity to share additional information and/or address lingering questions.

Recommendations for Future Research

With the amount of funds allocated toward training in organizations today, a careful examination of how to gain a better return on investment in training is important. This study can help organizations assess their work environment and design interventions that will better utilize the training dollars spent.

The focus of this study was to examine the effect of work environment factors (organizational support, management support, peer support, and the use of a peer support network) on transfer of training. The design allowed for examination of those factors over three periods: one month, six months, and one year. Ns were quite low; however, for some clusters. Examination of a larger group size would benefit future studies. Given the findings of this study and the extant literature on transfer of training, continued research is needed to examine the role of the work environment on the transfer of training. Since the findings indicate that work environment factors do influence the application of knowledge and skills, future research should examine more specifically the types of actions that bring about the highest impact for the trainees.

Research on the question related to timing of support actions would provide useful information. Specifically, does the timing (before, during, and post) of such support actions hinder or help the transfer process? If certain support actions are timely, and recognized by both the manager and trainee as significant to the trainee's participation in the training program, then would that hinder or help the transfer process? There appears to be a need to measure transfer over longer periods. Measuring transfer over a one- or two-year period would provide trainees a greater opportunity to apply the knowledge and skills they learned during training and would provide opportunities for organizations to plan for supportive actions to enhance transfer.

Another area for future research involves the ability of trainees to distinguish between the many types of support actions provided to them in the work environment. Do trainees distinguish between the support actions as an organizational action, management action, and peer action, or do they view all support actions as one entity?

Clarifying how trainees view work environment factors would be beneficial to help to define the impact of specific factors and transfer of training.

Future research with a larger size group to determine the impact of peers would be beneficial. More specifically, what are the specific actions peers take that affect transfer over longer time periods? Do peers recognize the informal conversations they have regarding the training as supportive actions or do they only recognizing specific supportive actions such as assisting with work responsibilities while the trainee attends the training program?

Examining the potential to utilize a formal peer support network and assess the utility of this device would be beneficial to organizations. Are there different types of networks or mediums that can be utilized to provide peers the support they need before, during, and after training to enhance the transfer process? Does the use of technology, the Internet and e-learning change the types of peer support needed?

Future research would also be valuable in examining the impact of organizational barriers and constraints facing organizations today and in assessing the total impact of these barriers (time constraints, union contracts, lack of funds, and resources) on the transfer process. This study was conducted in a non-profit organization with limited resources for rewards and recognition. Does this limitation prohibit an organization from truly enhancing the transfer process, despite the attempt to provide organizational, management, and peer support? Finally, can the day-to-day barriers and constraints reported by trainees be controlled by the organization to ensure adequate transfer of training?

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The Impact of Workplace Design on Training Transfer

Virginia W. Kupritz
The University of Tennessee-Knoxville

Tharulatha Y. Reddy
Former UTK graduate student

The present study investigates the impact of workplace design on training transfer and where the physical environment fits in with other organizational factors impacting transfer. Tentative findings indicate that trainees perceive workplace design to be an important organizational factor impacting transfer. Utilizing an ethnographic approach, cumulative frequencies for elicited responses about organizational factors were highest for workplace design perceived to impede transfer and second highest for workplace design perceived to facilitate transfer.

Keywords: Workplace Design, Training Transfer, Organizational Factors

This study examines workplace design as an organizational factor impacting training transfer. While HRD research recognizes the importance of organizational context in influencing worker ability and opportunity to transfer (Roullier & Goldstein, 1993; Tracey, Tannenbaum, & Kavanaugh, 1995), the physical environment has been overlooked as a potential contributor. None of the fifty-eight studies included in the most comprehensive reviews of the transfer literature (Baldwin & Ford, 1988; Ford & Weissbein, 1997) examines workplace design, yet the physical environment is an integral part of organizational context (Sundstrom & Altman, 1989; Sundstrom, De Meuse, & Futrell, 1990).

HRD initiatives that take workplace design into account support HRD's mission to provide the best opportunity to perform efficiently on the job. A 30-year established body of Environment and Behavior (EB) knowledge documents workplace design as an integral part of organizational context that can enhance or inhibit individual, group and organizational performance (Becker & Steele, 1995; Brager, Bauman, Heerwagen, & Ruland, 2000; Brill, Keable, & Fabiniak, 1999; Brill, Margulis, Konar, & BOSTI, 1984,1985; Brill, Weidemann, & the BOSTI Associates, 2001; Brookes & Kaplan, 1972; Crouch & Nimran, 1989; DeMarco & Lister, 1985; Ellis & Duffy, 1980; Hedge, 1982; Kupritz, 1998; Marans & Spreckelmeyer, 1982; Springer, 1982; Vischer, 1996). EB studies, however, have not approached work performance from a training and development perspective. The present study draws from this EB knowledge in its examination of the impact of workplace design on training transfer. The application of EB theory to human resource development needs allows the disciplines to examine workplace design from a multi-disciplinary perspective. The objectives of the present study were to identify design features that facilitate and impede training transfer and to determine where workplace design fits in with other organizational factors impacting transfer.

Why HRD Professionals and Organizations Need to Pay Attention to Workplace Design Issues

Even though HRD professionals do not have control over the physical environment, they need to understand the vital role that workplace design plays as an organizational factor in training and development. Conversations with M. Lawer (personal communication, September 30, 1998), a training specialist at a major university, point to performance difficulties attributable to workplace design:

Quite frequently, in at least half of the [training and development] workshops I present, the discussion turns to difficulties attributable to workplace design. For instance, in a recent workshop on delegation skills, a supervisor cited her office's physical layout as an obstacle; in her opinion, the extremely open nature of the office makes it difficult to give effective feedback to employees, as other employees as well as students can hear all that is said. Similar stories, detailing the effects of physical design on routine work activities, are recounted weekly.

Kupritz (2000b) highlights important reasons why HRD professionals should pay attention to design features impacting privacy in training and development whose reasons are just as valid for workplace design features at large. First, understanding the ramifications of the physical environment is crucial for helping trainees develop personal action plans that include potential physical obstacles and opportunities and helps trainees systematically

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think through which aspects of the training realistically can be used within these physical constraints. Action planning identifies organizational constraints (such as design limitations) and opportunities to perform learned behavior on the job that allow trainees to return to work with a realistic and workable action plan. This activity helps workers maximize their opportunities to perform efficiently on the job and starts the important process of training transfer (Cheek & Campbell, 1994). From the larger organizational perspective, action planning empowers individuals and groups by giving people some control over decisions affecting their work. Research has demonstrated that worker control over their work environments—both actual and perceived—can enhance physical health and offset the stressing effects of heavy workloads and a fast work pace (O'Neill & Evans, 2000). O'Neill and Evans determined that training workers on how to use their adjustable workstation designs reduced stress and enhanced motivational performance. The adverse effects of job-related stress are well-documented (Kahn & Byosiere, 1992; Karasek & Theorell, 1990).

Secondly, understanding the ramifications of the physical environment is crucial for designing a training environment psychologically and physically that simulates workplace design conditions in the application environment. Instructional design models stress that transfer is more likely to occur when learning conditions approximate the application environment (Clark & Voogel, 1985; Laker, 1990). The need for trainers to approximate the actual conditions created by design limitations and design opportunities holds true for all training experiences, be it a noisy office environment to an extreme environment such as a military maneuver in desert-like conditions. For example, O'Neill and Evans (2000) staged interruptions during training as trainees practiced certain tasks to approximate office conditions these learners encounter on the job. Simply put, sound training may not occur in a quiet atmosphere if in fact the actual workplace is noisy, filled with distractions and interruptions any more than military training would occur in jungle-like terrain for desert warfare (see the National Simulation Center for live, virtual and constructive training, 1999).

The physical environment is not under the control of the trainer, but the conditions under which the training experience occurs are. To this end, Kupritz (2000b) suggests that trainers can simulate uncrowded or crowded conditions that approximate the density of the trainees' actual work environment. Mock set-ups of workspaces that facilitate or hinder work processes can also be incorporated into the training experience. Further, trainers can simulate visual and acoustical distractions and interruptions by introducing pedestrian traffic, incorporating background noises (e.g., office equipment) and conversations, and staging interruptions. Kupritz concludes that trainees are better prepared to cope with the physical environment through training that approximates the physical conditions and action planning that helps trainees identify physical constraints and opportunities to support learned behavior on the job.

Thirdly, understanding the ramifications of the physical environment addresses another dimension of organizational context that may improve transfer. The multi-dimensional nature of training transfer presents a formidable challenge to organizations. Corporate America continues to spend billions of dollars annually on training, much of which has either failed to transfer or has been extinguished over time (Broad & Newstrom, 1992; Foxon, 1993; Georges, 1988; Grabowski, 1983; Kelly, 1982). This failure to transfer has particularly happened with training in problem solving, management development and interpersonal skills (Foxon, 1993). Holton and Baldwin (2000) cite a common estimate that only 10 percent of training actually transfers to job performance, but caution that this has not been empirically documented. Enough empirical evidence exists to document that transfer is extremely low even though the precise figure may not be known. While HRD research continues to seek solutions that improve transfer, much of the transfer research has focused on factors within the formal training context (Holton & Baldwin, 2000). A stream of research, however, has evolved that examines the importance of organizational factors in the work environment to support learned behavior on the job (Rouillier & Goldstein, 1993; Tracey, Tannenbaum, & Kavanaugh, 1995). This stream of research targets organizational factors such as level of management and collegial support, availability of resources and technology to support transfer, timeliness of training to try out new learning, training relevance, potential application of training on the job, and transfer climate (see the review by Ford & Weissbein, 1997; also Foxon, 1993).

Although progress has been made in understanding organizational factors impacting transfer, Kupritz (1999, 2000a) proposes that workplace design has been neglected as another organizational factor that can enhance or inhibit the ultimate success of a training intervention. Kupritz synthesized EB theory for workforce training and development to examine workplace design that impacted older and younger worker performance. The Kupritz studies, however, did not measure the impact of training-specific situational factors on newly acquired skills. To this end, the present study measures trainee perceptions about the impact of organizational factors on newly acquired supervisory skills. This type of approach supports Tracey, Tannenbaum and Kavanaugh's (1995) contention that measuring situational factors that are training-specific can help move beyond the question of whether training works to why training works.

Research Methodology

The study participants (sample) consisted of 24 office workers who are actively involved in supervisory duties within the same major university. The office workers participated in a training workshop for supervisory skills within a four-month period and were now on the job. These employees attended one of three supervisory training programs with similar training skills taught by the same trainer at the university. The training skills included encouraging upward communication, disseminating information effectively, delivering unpopular messages, effective feedback strategies, mastering listening skills, identifying basic requirements for performance and evaluation, maintaining high morale, and understanding team influences.

The study utilized the first phase of the Heuristic Elicitation Methodology (HEM) to interview the 24 office workers. The first phase of the HEM is qualitative and is designed to exhaust the range of respondent perceptions concerning the variables being examined. As a cognitive ethnographic method, the basic assumption of the HEM is that it is possible to match particular items and attributes with particular cultural values (Harding & Livesay, 1984). Ethnographic procedures such as the HEM help to establish authenticity through the nature and format of the questions asked, followed by content analysis techniques (see Denzin, 1978; Denzin & Lincoln, 1994; LeCompte & Schensul, 1999). The ability to establish validity, especially internal validity, has been regarded for some time as a major strength of ethnographic procedures (Goetz & LeCompte, 1984; LeCompte & Schensul, 1999). HEM stimulus materials are respondent-generated rather than investigator-generated. Similarly, data is respondent-categorized rather than investigator-categorized. This procedure preserves the language and conceptualizations of respondents and decreases the likelihood of overlooking significant attributes of a domain being examined (LeCompte & Schensul, 1999; Spradley, 1979; 1980).

Structured interviews were conducted with each office worker over a 30-60 minute period. The structured interview is the first phase of the HEM, called the Domain Definition. The Domain Definition is an open-ended interview in which the language of the respondent is used in a series of interlinked questions, with answers recorded verbatim. Using the respondent's own language in the questions helps to establish a shared meaning of language. The interviews reveal the range of items and attributes of a well-defined domain relatively quickly (Harding, 1974; Harding & Livesay, 1984; Kupritz, 1998). The HEM consists of several elicitation phases, however, any elicitation phase can be used individually and stand alone as a separate investigation (Harding, 1974). The methodology is predicated upon the idea that "language provides a powerful entry to cultural meaning structures" (Harding & Livesay, 1984, p. 75).

The Domain Definition identifies domains through semantic relationships in terms of behavior, artifacts and knowledge that people have learned or created. A "domain" is a set of categories organized on the basis of a single semantic relationship (e.g., "X" is a kind of "Y"; "X" is a way to do "Y"). The research instrument for this study was designed to elicit information primarily about organizational factors perceived as facilitating and impeding training transfer. The 10 questions asked avoided "referential meaning" by asking for "use" through contrast, similarity, uniqueness and the ideal in an effort to exhaust a domain (LeCompte & Schensul, 1999; Spradley, 1979; 1980). Three of the 10 questions are presented below, illustrating the nature and format of the questions used in this study:

Q. What skills learned in this workshop are you now using on the job? [Answers = "X"]

Q. When "X", what conditions, or office features, or situations make it easier to "X"?

[Answers = "Y"] PROBE: What else might make it easier to conduct "X" other than "Y"?

Q. When "X", what conditions, or office features, or situations make it harder to "X"? [Answers= "Y"] PROBE: What else might make it harder to conduct "X" other than "Y"?

The investigators conducted domain and taxonomic analyses utilizing content analysis procedures (see Spradley, 1979). These analyses involve sorting through interview responses and identifying patterns, categories, or themes. A tabular worksheet was developed that displayed semantic relationships. Possible cover terms and included terms (i.e., items and attributes) that appropriately fit the semantic relationships were searched for in the data. Making systematic use of this kind of worksheet helps to uncover domains embedded in the interview responses (Spradley, 1979). For example, included terms dealing with effective interpersonal communication were grouped as items and attributes under the same cover term, positive management support. Each item and attribute included under this cover term fit the semantic relationship, "X" (e.g., listen more collectively) is a kind of positive management support.

Items and attributes were respondent-generated and respondent-categorized to preserve the language and conceptualizations of respondents. Each item and attribute was represented in some domain category. Key participants reviewed the domain categories for accuracy and gave positive feedback (see Creswell, 1994; Merriam,

1988). Following the content analyses, cumulative frequencies for similar types of items and attributes were calculated to determine how often similar types were elicited. Quantifying included terms in domain categories allowed the investigators to determine included terms elicited most frequently and to gain a beginning understanding about the distribution of beliefs across domain categories. A system of cultural meanings was uncovered that these office workers use to denote and connote organizational factors impacting transfer.

Findings

Elicited responses by the office workers revealed four main organizational factors as facilitating transfer: positive management support; supportive workplace design; availability of technology and equipment; and positive coworker support. Elicited responses also revealed four main organizational factors as impeding transfer: unsupportive workplace design; lack of management support; lack of coworker support; and lack of time in general (but not perceived as caused by management). Table 1 reports cumulative frequencies computed for each of the main organizational factors.[2] Cumulative frequencies for elicited responses were highest for positive management support perceived to facilitate transfer, followed by workplace design.

Table 1. *Cumulative frequencies for the main organizational factors perceived to impact transfer*

Organizational Factors Facilitating Transfer	*f*
Positive management support	71
Supportive workplace design	53
Availability of technology and equipment	19
Positive coworker support	9

Organizational Factors Impeding Transfer	*f*
Unsupportive workplace design	43
Lack of management support	30
Lack of coworker support	29
Lack of time in general (not elicited as caused by management)	14

Elicited responses for positive management support perceived to facilitate transfer included:
Listen more collectively; open environment, personnel would be welcome to make comments; try to be available; make sure they [employees] are appreciated; try to recognize when people express interest; not want to openly chastise them in front of their peers; [manager] leads and takes the lead; should always be an open door to express concerns, whether negative or positive; encourage diversity [in opinions]; being allowed a flexible schedule; [providing] regular staff meetings; have staff meetings on a regular basis, if there is a problem you can talk about it right away; management not restricted by deadline; fully staffed; if we can hire somebody at rush [time] in the middle of the year; not to have so many [hierarchical] layers; opportunity for cross-training; a pay raise; [employees] need to have a purpose and a goal.
[verbatim responses by office workers]

Elicited responses for supportive workplace design perceived to facilitate transfer included:
An office with less people; if we had less other offices in this unit, it would create unity; if it [workspace] is quiet; if you were set up in cubicles with the door closed, then it is private; should be offered some sort of withdrawal if you are dealing with sensitive matters; walls to go to the ceiling; I wish I had an office with a door, you need to talk privately; having my own office would be ideal so you can concentrate on that thing at one time; go to a place where you are uninterrupted, need to be away from the environment, the everyday environment; if there are no interruptions; close proximity; being close together; good working space to get things done; office environment plays a role, [it] puts the team in a better frame of mind; an office with adequate workspace and facilities; environmental things add or take away from one's motivation; communal area for team meetings [is needed]; as far as efficiency and morale, a nicer environment; have to be comfortable--a desk, chair and climate [like we had] in the old building; an office with windows to see outside.
[verbatim responses by office workers]

Cumulative frequencies for elicited responses were highest for workplace design perceived to impede transfer, followed by lack of management support. Elicited responses for unsupportive workplace design perceived to impede transfer included:

Too crowded up here; overcrowding; don't have my own office, keeps me distracted; I am sitting there with no privacy-often times I can hear the other person on the phone; don't have room for cubicles physically, find yourself listening to others' conversations and it breaks your concentration; the break room is right there, the room is very disruptive, you don't feel free to talk; sometimes people congregate around the phone, makes it hard to hear on the phone; the nature of the business by virtue of the physical structure where my office [is] and there is a physical line to allow the employees to stop by; constant interruptions; too spread apart; a lot of skills I cannot use because I am so far moved; if my office were closer, the physical part; the environment does not set up for impromptu; harder down here because of the layout of the facility; cubicles, the problem is you have to physically get up [to] ask them [employees].

[verbatim responses by office workers]

Elicited responses for lack of management support perceived to impede transfer included:

Other priorities, don't have one-on-one interaction; some of our supervisors get stuck in the old way of thought; difficulty communicating upward; overbearing supervisor; a supervisor who interrupts all the time; time management, it is hard to service three locations; office schedules are different; time sometimes, things go unattended; being short-handed does something to morale; to go through so many [hierarchical] layers to get things approved; no training; an employee who has no skills, you need to have opportunities; highly specialized activities, very compartmentalized; when you are bombarded with three or more people busy telling me things to do, they all want an answer right away; lack of priorities; don't show that much recognition when someone does something good; recognition needs to come higher; no management support for team.

[verbatim responses by office workers]

Cumulative response frequencies were then broken down to examine the distribution of beliefs across similar types of items and attributes for each organizational factor. Table 2 reports response frequencies computed across items and attributes for the top four organizational factors elicited as impacting transfer. Items and attributes dealing with effective interpersonal communication were elicited most often as facilitating transfer among all organizational factors. Items and attributes dealing with workplace design features that did not support privacy needs were elicited most often as impeding transfer among all organizational factors.[3] As stated earlier, no inferences can be made at this time about the strength of association or the relative weighting of importance for these elicited items and attributes and their domain categories.

Table 2. *Response frequencies computed across item and attribute groupings for the top four organizational factors*

Organizational factors	Item and attribute groupings	*f*
Positive management support facilitating transfer	• Effective interpersonal communication	42
	• Efficient management of logistic resources	13
	• Efficient management of human resources	16
Supportive workplace design facilitating transfer	• Workplace design features supporting privacy needs	26
	• Efficient and flexible workspace	13
	• Close proximity to workers	4
	• Sharing of workspace to increase communication	4
	• Aesthetically pleasing, adequate comfort level, corporate image reflected in workspace	5
	• Workspace with windows	1
Unsupportive workplace design impeding transfer	• Workplace design features not supporting privacy needs	26
	• Inefficient and inflexible workspace	6
	• Proximity too far away from coworkers	7
	• Space not shared, creating communication barriers	4
Lack of management support	• Ineffective interpersonal communication	10

impeding transfer	• Inefficient management of logistic resources	9
	• Inefficient management of human resources	11

Implications

The theoretical considerations presented in this study, though still in their formative stage, provide a beginning knowledge base about the impact of workplace design on training transfer. The study indicates that trainees perceive workplace design to be an important organizational factor in facilitating and impeding transfer for supervisory work practices. The findings reveal that unsupportive workplace design is foremost in the minds of trainees when discussing organizational factors impeding transfer for supervisory skills and, pending further research, may contribute to the 10 percent low transfer record commonly cited for work practices at large. HRD professionals, therefore, cannot afford to ignore the vital role that workplace design may play in transfer, especially considering ASTD's 2001 report that corporate expenditures for managerial and supervisory training are at "fairly high levels" worldwide (Marquardt, King, & Koon, 2001, p. 10). For example, Canada and Australia/New Zealand in 1999 spent 22 and 21 percent of their training budgets, respectively, on managerial and supervisory training.

The findings also reveal that supportive workplace design may improve transfer. Unfortunately, the reality is that most people work in distraction-porous workspaces--filled with interruptions, acoustical and visual distractions, etc.--all of which contribute to unsupportive workplace design (Brill et al., 1999). This means that HRD professionals need to acknowledge the pervasive mismatch that exists between the quiet, structured classroom-type training environment and the noisy, interruption-filled "real world" work environment. Brill et al. (2001) describe this work reality, based upon an extensive study of some 13,000 American office workers:

Of all their time, people in all job types spend by far the most doing quiet work. Supporting quiet work is one of the two top productivity enhancers and job satisfiers. However, two-thirds of those in open offices (the most prevalent workspace type) are "often distracted by others' conversations" and can't do undistracted work. (p. 32)

Instructor-led classroom training continues to predominate training delivery globally, ranging from 56.2 % to 84.5% with the United States at 79.9 % (Marquardt, King, & Koon, 2001). This high percentage emphasizes the need for training to approximate physical conditions of the work environment more closely during the classroom experience, and to incorporate potential design obstacles and design opportunities into action planning so that trainees can return to work with a realistic and workable action plan.

The detail gained from this initial study warrants further studies that examine the impact of workplace design on other types of training skills and where workplace design fits in with other organizational factors for these training skills. It may be that workplace design is an important organizational factor impacting transfer for some work practices but not for others. Workplace design, on the other hand, may be important for transfer across the board. The ethnographic nature of the present study did not allow the investigator to prioritize the relative importance of workplace design compared to other organizational factors. Future studies can measure the relative weighting of importance given to organizational factors by respondents and the strength of relationships between organizational factors and acquired training skills.

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Transfer Of Learning: How Managers Develop Proficiency

Michael D. Enos
Clark – Bardes Consulting

Marijke Kehrhahn
University of Connecticut

The purpose of this study was to expand the theoretical framework for understanding the transfer of learning by investigating the relationship between transfer of learning, proficiency, work environment variables, and informal learning; and to contribute to the existing theory of informal learning by investigating the role that informal learning plays in the development of managerial skills.

Keywords: Informal Learning, Transfer of Learning, Metacognition

Corporate managers require complex cognitive skills in order to work effectively with highly technical systems; interpersonal skills to be able to work competently in work teams; and leadership skills to effectively manage. A few decades ago, the solution to manager proficiency problems was to send people to formal classroom training (Wexley & Latham, 1981). Now, formal training programs are being criticized because they do not prepare employees to keep pace with the constant change that occurs in today's workplace, do not provide employees with sufficient "real world" experience to develop proficiency (Sheckley & Keeton, 1999), and are not adaptive and meaningful to employees (Poell, Van Der Krogt, Wamerdam, 1998). This study investigated the relationships between managerial proficiency, transfer of learning, the means by which managers develop proficiency, and the transfer climate in the work environment. Understanding these complex relationships is valuable because it will help organizations to capitalize on their learning programs, reduce costs, ensure a more productive workforce and, ultimately, enhance their competitive advantage.

Problem statement

In 1998, an estimated 5.3 million managers were sent to formal training, resulting in 166.2 millions hours of managerial training (Bassi & Van Buren, 1999). While formal classroom training is one way for managers in organizations to learn, it may not be the most effective or most widely used learning method. According to Day (1998), 70% of learning in companies occurs informally from activities that take place outside of the classroom setting. Despite the prevalence of informal learning in the workplace, research has focused primarily on the transfer of skills learned during formal training (Rouiller & Goldstein, 1993). Due to the lack of research on what facilitates the application of skills learned informally, human resources practitioners are left with unanswered questions about ways to ensure that employees apply what they learn informally.

Theoretical Framework

Proposition 1: A Manager's Level Of Proficiency is Positively Related to the Transfer Of Learning. Sheckley and Keeton (1999) defined proficiency as the ability to skillfully apply knowledge within a particular domain. Research suggests that individuals who are proficient within a particular skill domain have an extensive and well-organized knowledge base that is built from experience (Chi, Feltovich, & Glaser, 1981; Kraiger, Ford, & Salas, 1993). When a knowledge structure is robust, strong links between problem types and specific solutions exist, thus enabling transfer of learning. For example, Gick and Holyoak (1983) found that 58% of individuals with better quality schemas (an indicator of a well-organized knowledge base) were able to solve a target problem compared to 29% of subjects who had poor schemas .The association between managerial proficiency and the transfer of learning has not been investigated in past studies. Based on the research addressed above, it was expected that managerial proficiency would relate positively with the transfer of learning.

Proposition 2: Managers Learn Mostly Through Informal Learning In The Workplace. Although formal classroom training is the most widely used mode of instruction to develop managers in today's corporations (Bassi & Van Buren, 1999), research suggests that most managerial learning takes place informally (Lowy, Kelleher, & Finestone, 1986; McCall, Lombardo, & Morrison, 1988). Informal learning strategies include job experience

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(Davies & Easterby-Smith, 1984; McCall, et al., 1988), networking (Watkins & Marsick, 1992), solving genuine work problems (Sheckley & Keeton, 1997), and coaching (Watkins & Marsick, 1992) as well as supervision, mentoring, meetings, customer interaction, goal-directed peer-to-peer communication, internal customer interaction, observing peers and supervisors, socializing, and exploration (Day, 1998). Although past informal learning research has demonstrated support for managers learning mostly from informal learning, gaps remain in the literature concerning the degree to which learning takes place informally and the specific types of learning activities that managers engage in to learn informally. This study was conducted with the intention of filling these gaps in the literature.

Proposition 3: Skills Learned Through Informal Learning Will Be Transferred More Readily Than Skills Learned During Formal Training. Proposition 3 is underpinned by common elements theory which holds that when individuals are able to make connections between past experiences and current problems, transfer of learning is likely to occur (Butterfield & Nelson, 1995). A premise of this study was that skills learned informally are more likely to share similar features with transfer tasks in terms of context and content. Therefore, skills learned informally are more readily applied than skills learned formally. Yorks, et al.(1998) found that 80% of employees who interacted with the managers who attended an action learning reflection program that required managers to work on real-time problems as a learning mechanism reported that they saw noticeable differences in the managers' behaviors after training. Further, Stolovitch and Yapi (1997) found large effect size differences in transfer between subjects who participated in a case study method of training and a control group who did not participate in case method training (d = 2.4). Past research on how the similarities between learning situations and transfer tasks increases the likelihood of transfer of learning formed the basis of this study.

Proposition 4: A Supportive Work Environment Facilitates the Transfer Of Learning Over the past decade, a number of studies were conducted that investigated the relationship between work environment factors and the transfer of training. Rouiller and Goldstein (1993) conducted the study that provided the best support that work environment factors relate to the transfer of training. In their study, the researchers found that transfer climate (an aggregate measure of work environment factors) explained 36% of the transfer of training variance. Several studies (e.g., Brinkerhoff & Montesino, 1995; Facteau, Dobbins, Russell, & Kudisch, 1995; Foxon, 1997, Tracey, et al., 1995; Xiao, 1996) have measured the relationship of specific work environment variables (e.g., coworker support, supervisor support, organizational support) with the transfer of training. The studies that have been conducted to date have examined the relationship between work environment variables and the transfer of learning from formal training programs. A gap in the literature remains concerning the role that work environment factors play in the transfer process when skills are learned informally. The results of this study were expected to show a positive relationship between work environment variables and the transfer of learning.

Methodology

Setting. This study was conducted in 1997 with managers who worked at a large subsidiary of a 100 year old Fortune 100 company located in New England. The company, a leading provider of insurance products that employed approximately 20,000 employees, was experiencing rapid growth, deep change, and extensive mergers. The sponsoring company valued effective management education and provided a wide variety of formal training programs for managers centered on developing proficiency around several core leadership behaviors. Further, informal learning was recognized by senior leaders, and the organization at large, as a purposeful activity. The extent and frequency of informal learning in the organization cannot be stated with any degree of certainty since the company did not have any formal metrics in place that measured informal learning.

Participants. A sample of 188 managers was identified by the company's HR department from a larger population of managers as potential participants for the study. Of the 188 managers who were invited to participate in the study, 45% (84) took part by completing a questionnaire. All participants were notified through informed consent that their participation or non-participation would not affect their status as an employee of their company, and were ensured of confidentiality. The respondents included 60 (71%) women and 24 (29%) men. Respondents were on average 42 years old, ranging from 25 to 61 years, with an average of 10 years of managerial experience. Thirty percent of the managers had 1-5 years of managerial experience, 38% had 6-10 years, 16% had 11-15 years, and 16% had more than 16 years of managerial experience. Most participants (43%) had earned a Bachelor's degree while 17% held a Master's degree, 14% an Associates degree, 13% a High School diploma, 6% a Ph.D. or M.D.

Instrumentation. The questionnaire developed for the study consisted of three sections. Section 1 of the questionnaire consisted of 20 items that pertained to core leadership behaviors identified by HR professionals in collaboration with a number of managerial employees one year prior to the study. Managers were asked to rate the core leadership behaviors in three ways. First, managers were asked to self-report how they learned each of the 20

skills listed in the questionnaire (1 = did not learn at all from informal learning activities to 4 = learned only from informal learning activities). Second, managers were asked to rate their present proficiency of each managerial skill (1 = extremely poor to 5 = excellent). Third, managers were asked to rate the degree they applied each managerial skill to the job (1 = never to 5 = always). The instrument yielded three scores for each participant. A total Informal Learning score was calculated to indicate the degree to which managers learned core leadership behaviors through informal learning. A Proficiency mean score was calculated to reflect the level of proficiency in core leadership behaviors. Finally, a mean Transfer of Learning score was calculated for each participant that reflected the degree core leadership behaviors were applied to the job. In addition, Section I included an open-ended question that asked participants to list the three learning activities that they used most to learn the core leadership behaviors.

Section II of the questionnaire consisted of 32 items that were adapted from Rouiller and Goldstein's (1993) transfer of training climate instrument. Participants responses rated the frequency (5 = always to1 = never) with which various supervisory support (13 items), coworker support (13 items), and organizational support (6 items) actions occurred. The configuration of the scales followed the findings of Holton, Bates, Seyler, and Carvalho (1997) who found no support for the work environment consisting of situational cue and consequence macro dimensions. A mean score for each of the scales (Supervisor Support, Coworker Support, and Organizational Support) was calculated for each participant. Section III of the questionnaire was used to collect demographic information: age, gender, ethnicity, highest level of education completed, years of managerial experience, and business unit. Using the sponsoring company's internal mailing system, the questionnaire along with an informed consent form, and a self-addressed envelope were mailed to members of the sample during the months of October and November of 1997. Participants were given a four-week period to respond.

Limitations. The results of this study may have been limited by several factors: influence of self-report measures, volunteer sample, correlational design, and threat of history. Self-report data is more likely to be accurate if participants perceive the study to be non-threatening (Gable & Wolf, 1993) so participants were assured confidentiality and were told that non-participation in the study would not have any impact on their employment. As a result of the volunteer nature of the sample, the findings are not generalizable beyond the sample (Borg & Gall, 1989). Since this study applied a correlational design, the results did not identify a cause and effect relationship between the independent and dependent variables; the results can only be explained in terms of relationships. The use of a correlational design also posed the threat of a relationship existing between a third unknown variable. Technically, a threat of history cannot exist in a study that does not employ an experimental design. Nevertheless, organizational events that occurred during the data collection phase (e.g., merger, restructuring) may have prompted some participants to view the survey as a tool to assess job performance to be used by human resources to make future employment decisions. Participants who perceived the survey in this way may have inflated their responses to the questionnaire items to portray themselves in a more favorable light or declined to participate. While it is contended that none of these limitations posed a major threat to the results of the study, it is possible that they had some influence on the interpretability of the results.

Results and Findings

Research Question 1. Research Question 1 posed the question: To what extent are managerial job skills learned from formal training and informal learning activities? To answer this question, participants were asked to report the degree to which they had learned each job skill informally. In addition they were asked to identify the three predominant means by which they learned the core leadership skills. The results suggested that managers learned managerial skills mostly from informal learning ($\underline{M}$ = 60, "learned mostly from informal activities", 95% CI: 58,62). Informal Learning scores ranged from 40 ("learned slightly from informal learning activities") to 80 ("learned only from informal learning activities"). The range of scores suggested that no managers learned a skill without the use of informal learning. To further our understanding of the meaning of the Learning Activity Utilization scores, the 247 learning activities reported by managers were classified into two categories: informal learning or formal training. An analysis of the 247 learning activities revealed that 70% (173) of the learning activities pertained to informal learning, while 30% (74) pertained to formal training activities. Of the 173 informal learning activities, 63% pertained to interaction with others, 23% pertained to job experience, 12% pertained to watching others, and 2% pertained to reflection. The 74 formal training activities that participants described pertained to the following: formal classroom training (55%), reading (12%), academic classes (12%), seminars (7%), audio/video (4%), workshops (4%), military (4%), and conferences (1%).

Research Question 2. Research Question 2 posed the question: To what extent do self-reported Proficiency scores, Informal Learning, Supervisor Support, Coworker Support, and Organizational Support scores explain variance in self-reported Transfer of Learning scores? The results of a preliminary residual scatterplot suggested that

all of the assumptions for normality, linearity, and homoscedasticity were met, however, casewise diagnostics results suggested two outliers. After the removal of the two outliers, the hierarchical regression analysis to test Research Question 2 was applied. The order of entry of the independent variables into the regression equation was based on the correlation with the dependent variable. Proficiency (r = . 64), was entered as the first step, followed by Organizational Support (r = .18), Coworker Support (r = .15), Supervisor Support (r = .11), and Informal Learning (r = .01). At the final step, with all variables entered, the regression explained 55% of the variance in Transfer of Learning scores. Proficiency explained 54% of unique variance ($t = 9.1$, $p < .01$), while 1% of unique variance was accounted for by Coworker Support ($t = 1.2$, $p > .05$). The other variables entered into the regression equation did not explain any unique variance (see Table 1).

Table 1. *Hierarchical Regression Analysis For The Independent Variables Total Proficiency, Organizational Support, Coworker Support, Supervisor Support, Total Learning Activity Utilization And The Dependent Variable, Total Transfer of Learning*

Variable	R^2	Unique Variance	Beta Weight (β)	t
Proficiency	.54	.54	.71	9.1**
Organizational Support	.54	.00	.05	.52
Coworker Support	.55	.01	.11	1.2
Supervisor Support	.55	.00	.01	.08
Informal Learning	.55	.00	.06	.71

** $p < .01$

A post-hoc correlation analysis showed that Informal Learning was negatively correlated with Organizational Support ($r = -.46$), Supervisor Support ($r = -.26$), and Coworker Support ($r = -.15$). A hierarchical regression analysis was conducted to clarify the relationship between the variables. Informal Learning was entered as the dependent variable. At the final step, with all variables entered, the regression explained 22% of the variance in Informal Learning. Organizational Support explained 21% of unique variance ($t = 22.4$, $p < .01$), while 1% of unique variance was accounted for by Supervisor Support ($t = -.84$, $p > .05$). Coworker Support did not explain any unique variance ($t = .58$, $p > .05$). In sum, the results indicated that Organizational Support had a medium effect size inverse relationship with informal learning, suggesting that managers who perceived lower levels of Organizational Support perceived more of their learning to be informal.

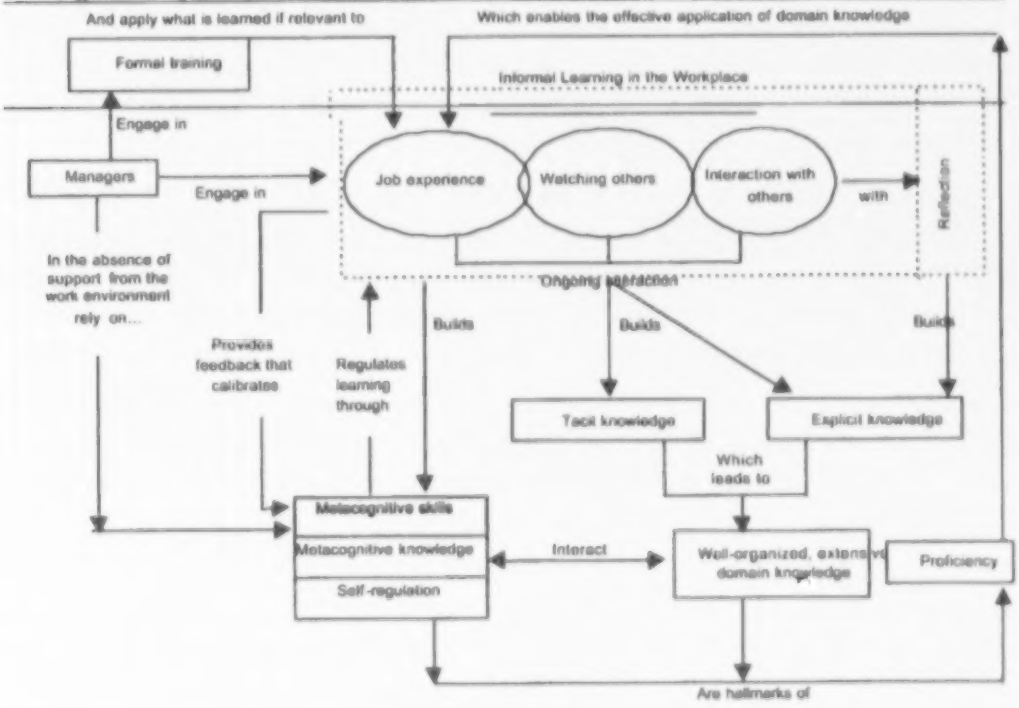
Conclusions. Two conclusions were drawn from Research Question 1 results. First, managers learned managerial skills predominantly through informal learning. Second, "interactions with others" (e.g., interacting with supervisors, coworkers, and subordinates) was the informal learning activity that managers used most to learn managerial skills. Four conclusions were drawn from the results of Research Question 2. First, Proficiency explained 54% of the Transfer of Learning variance. Second, Informal Learning did not explain a significant amount of variance in the Transfer of Learning. Third, elements of the work environment did not explain a significant amount of variance in the Transfer of Learning variance. Fourth, a lack of Organizational Support explained 21% of the variance in Informal Learning.

Conclusions and Recommendations

Two assumptions of the study – managers' proficiency would be strongly related to transfer of learning and managers learn mostly through informal means, were supported by the findings. However, the lack of support for the other two assumptions – that transfer of learning would be strongly related to work environment and that skills learned informally would transfer more readily – prompted a rethinking of our model of managerial learning. This reconceptualization led to the development of a new model (Figure 1) and a new set of propositions concerning the development of managerial proficiency. As outlined in Figure 1, managers in this study developed proficiency through a dynamic, ongoing informal learning process that entailed engaging in job experiences, interacting with others, observing others, and reflection. Informal learning resulted in tacit and explicit knowledge that contributed to well-structured domain knowledge. In the absence of support from the work environment, managers relied on their metacognitive abilities to help regulate participation in informal learning activities. Managers planned, monitored, and evaluated their learning behaviors in relation to their current domain knowledge, and were able to regulate their actions in such a way that enabled progress towards the achievement of their learning objectives (e.g., strategies to

improve the work performance of subordinates). By applying their metacognitive skills, managers were able to further increase their metacognitive proficiency. The two hallmarks of proficiency, metacognitive abilities and well-structured domain knowledge, enabled managers to more effectively apply the knowledge (i.e., proficiency) they gained from informal learning experiences.

Figure 1. Proficiency Development Cycle



Proposition A: Informal Learning is a Continuous Cycle of Challenging Experiences, Action, and Reflection. Following Watkins and Marsick's (1992) theory of informal learning, an argument can be made that the informal learning activities that managers specifically reported were elements that facilitated a broader informal learning process that included both explicit and implicit learning. For example, "job experiences" cited by managers provided specific and challenging work problems which required necessary actions to resolve. Further, "interactions with others" and "watching others" promoted "reflection" and helped managers to make sense of their experiences. These conscious activities were embedded in a deeper, ongoing series of experiences that promoted learning.

Proposition B: Informal Learning is a Social Process. The most prevalent learning activity (44%) that managers reported to build proficiency was "interactions with others" in the workplace. While prior research (e.g. Billet, 1994) has suggested that interaction with peers, supervisors, and subordinates in the workplace are strategies for informal learning, the results in this study are unprecedented due to the wealth of learning that managers reported through these types of interactions.

The tenets of social practice theory help to explain why and how managers in this study learned through their "interactions with others" in the workplace. Lave and Wenger (1991) purported that learning is a social process of participating in work activities and interactions with others that do not exist in isolation, but are part of an integrated set of relations that take on meaning and are situated in the work setting. According to Billet (1994), learning can occur as a result of close guidance from others in the course of work activities. Choo (1998) argued that knowledge can be shared explicitly and implicitly among employees who interact with each other and with the social dimensions of their work tasks and organizational setting. Thus, by observing, assisting, and copying behaviors of experienced practitioners, managers can develop an understanding of the "norms" of a company, and a tacit and explicit understanding of these "norms" can be transferred from one manager to another. The conceptualization of

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social practice theory girded by the comments from participants in this study has two important implications for informal learning theory. The first implication is that informal learning is a social process that is largely dependent on social interaction with other individuals in the workplace and is situated in the organization. The second, and perhaps more important implication, is that actions, in concert with interactions with others in the workplace, serve as an important vehicle in which domain-specific knowledge is generated, articulated, and dispersed throughout an organization. This implication suggests that neither action nor interaction alone will result in the building of domain knowledge necessary to become proficient; an integration of action and interaction must exist.

Proposition C: Transfer is a Component of Informal Learning that is Embedded in the Process. The lack of a significant relationship ($r = -.01$) found in this study between informal learning and the transfer of learning raises questions about the actual relationship between the two phenomena. As described by Holton, et al. (1997), transfer of training occurs when a learner is able to take what is learned during formal training and successfully apply it on the job. As evidenced in this definition, a clear demarcation exists between learning (that takes place during formal training) and transfer. But, what is the role of transfer in an informal learning system? When learning is a continuous cycle of challenging experiences, actions, and reflection when does learning stop and when does transfer begin? Results from this study and past research help to provide insight into these questions.

Yelon, Reznich and Sleight (1997) proposed that "a law of exchange" characterizes the transfer process, that is with each application, a learner gathers new knowledge from its implementation, which in turn is used for future applications. In essence, the study suggested a dynamic process of transfer that entailed individuals learning informally from their applications. If the contention that transfer is a component of the informal learning process stands, why wasn't such a relationship demonstrated by the results of the study? Similar to past studies (e.g., Rouiller & Goldstein, 1993; Tracey, et al., 1995) transfer of learning in this study was measured as a one dimensional "product." The single dimensional approach used to measure transfer made it difficult to detect differences in transfer associated with learning methods.

Proposition D: Metacognitive Skills Moderate Informal Learning and the Application of Learned Skills. Contrary to past research, the results of this study suggested work environment factors did not play a significant role in how managers learned and transferred skills. If learning and transfer were not influenced by external factors, what internal mechanisms enabled managers to learn and transfer skills? Ertmer and Newby (1996) argued that self-regulation involves the recursive and interactive process of identifying actions to facilitate the achievement of a task (i.e., planning), paying mindful attention to the strategies that are employed to achieve a task (i.e., monitoring), and assessing the outcomes of the actions that are deployed to achieve a task (i.e., evaluation). The self-regulation process is guided by metacognitive knowledge. Metacognitive knowledge entails individuals' awareness of their strengths and weaknesses as learners, requirements to succeed in a task, obstacles in the environment that might interfere in accomplishing a task, and cognitive strategies that might lead to success (Ertmer & Newby, 1996). Metacognitive knowledge and self-regulation work together in a dynamic fashion to produce effective learning. Metacognitive knowledge provides individuals with information about a specific task, its demands, and what it will take to accomplish the task. Self-regulation, on the other hand, serves as a mechanism that controls the application of metacognitive knowledge and helps reduce the gap between an individual's current and desired abilities (Ertmer & Newby, 1996).

Two results from this study allow for speculation that metacognitive knowledge and self-regulation played roles in how managers learned and transferred learning. First, the results of a post hoc analysis showed that an inverse relationship existed between organizational support and informal learning ($\beta = -46$). In the absence of organizational support (i.e., supplies, learning aids, and rewards to assist in the transfer of learning), participants made a deliberate effort to engage in informal learning activities to achieve the knowledge and proficiency necessary to carry out required job tasks. Following this interpretation, managers' metacognitive knowledge may have helped them to detect a discrepancy between the managerial tasks they needed to accomplish, their current abilities to accomplish the tasks (i.e., domain knowledge), and the support that their environment provided to carry out these tasks. In order to reduce the gap between their current domain knowledge and required knowledge, managers may have actively sought out, created, and recognized informal learning opportunities (i.e., self-regulation) to develop their managerial proficiency.

Practical Implications for HRD Practitioners

Today's companies rely mostly on formal training to develop the proficiency of managers. Unfortunately, the use of formal training programs to develop the proficiency of managers has not paid dividends, as most skills that are learned during formal training are rarely applied on the job (Pfeffer & Sutton, 2000). Based on this study's findings,

two implications are offered for HRD practitioners who face the challenging task of developing the proficiency of managers in their organization.

Implication 1. Shift the focus away from formal training of managers and develop more realistic expectations concerning the application of what is learned through formal training. Recognize and leverage the abundance of informal learning opportunities that managers experience and focus on developing managerial proficiency and expertise.

Opportunities for informal learning such as interactions with others in the workplace, observing others, and challenging job assignments must be harnessed and leveraged. In addition to developing explicit and implicit knowledge, these types of activities over a period of time are more apt to result in the development of proficiency. In order to facilitate managerial proficiency in the workplace, managers need to be in an environment where informal learning is encouraged and strategies and activities that promote informal learning (i.e., reflection and challenging experiences) are made available (Sheckley & Keeton, 1997).

Implication 2. Develop the metacognitive skills of managers.

Managers that have superior metacognitive skills will be more likely to engage in and seek out informal learning opportunities and effectively transfer skills that they have learned. Past research supports two approaches to developing self-regulation (Smith, et al., 1997). The first approach is to give the learner control over the content, sequence, and pace of learning. Sternberg (1989) argued that giving learners control over their learning can lead to a more motivated and involved learner. A second approach to promoting managers' self-regulation is generating a mastery orientation. Mastery orientation differs from a performance orientation in that the focus of learning is on developing proficiency of a skill, not on outperforming peers (Smith, Ford, & Kozlowski, 1997).

How This Research Contributes to New Knowledge in HRD

The fast pace in which corporations operate today, and the need for companies to remain competitive, has unloaded a heavy burden on organizations, managers, and HRD practitioners. The prevailing belief among organizations and HRD practitioners today is that increased spending on formal training will result in more effective managerial performance and ultimately, increased revenue for the company (Bassi & Van Burren, 1999). While there is some evidence that shows that companies that heavily invest in training are more successful than those that don't (Bassi & Van Burren, 1999), this study demonstrated that formal training is not the ultimate source of learning and the transfer of learning.

Organizations and HRD practitioners would be well-served to rethink their approach to managerial learning and proficiency. This study suggested that managers learn mostly from informal learning, proficiency is the product of informal learning, and that self-regulation moderates informal learning and the transfer process. In light of these findings, companies should harness and leverage informal learning and cultivate the metacognitive abilities of managers, as opposed to increasing spending on formal training programs. By applying these approaches, companies may save money, develop more proficient managers, and gain a competitive advantage.

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Doing Good or Doing Well? A Counter-story of Continuing Professional Education (CPE)

Laurel Jeris
Linda Armacost
Northern Illinois University

Through a critical literature review and comparison of CPE curricula offered by medical and legal professional associations, this study examines ways in which political, cultural, and institutional practices within the professions and their associations support or injure various groups. This exploratory study begins the examination of one of four research propositions composed to stimulate new questions and research in CPE, focusing on the relationship between CPE and social justice

Keywords: Continuing Professional Education, Diversity, Social Justice

This study reexamines traditional approaches to continuing professional education (CPE), but in a different way from other recent calls for scrutiny and subsequent reframing (Mott and Daley, 2000). The professions, originally designed by and for the privileged, in many ways still function as elite groups. In stark contrast to a uniform profile of the highest status professions (medicine, law, engineering) as white males from privileged backgrounds (Eraut, 1994), today's professionals are increasingly differentiated in social background, race/ethnicity, gender, disability, lifestyle, and sexual orientation. This has resulted not only in the emerging diversity of the professions, but also in the proliferation of young professionals who challenge traditional values, assumptions, and conventions.

The CPE curricula of mainstream professional associations are composed primarily of updates on content knowledge, which are presented as "scientific," hence value neutral. The extent to which this knowledge is Euro-centered and excludes the contributions of women and non-Whites is left unexplored.

Two recent commentaries on the state of CPE (Cervero, 2000, and Queeney, 2000) do not include increasing diversity in the professions themselves as one of the current challenges, trends, or critical issues. We assert that the traditional view of CPE based on an objectivist theory of knowledge is inadequate to enhance competence for (1) successfully relating to an increasingly diverse professional community; (2) reframing policies, practices, and barriers to entry in the professions; and (3) using specialized knowledge for treating people, not as collections of needs, but as whole human beings (McKnight, 1995, p.39).

Problem Statement and Research Propositions

The mainstream approach to CPE disregards the critical literature that questions the concept of professionalism as an ideology. If we are to create a theory of communicative action (Habermas, 1999) for professions that is centered on communities of difference, we must turn to a body of knowledge that has hitherto been ignored. The research propositions stated below and the specific question this study addresses, are framed differently from many found in the literature on CPE. Rather than focusing on measurable educational outcomes of learners, they call attention to the structures and processes of the professions (including CPE) intended to improve the professional practice of their constituencies.

Traditionally, the ideal profession is depicted as a category or a distinction in which individuals recognize others as they recognize themselves promoting an ideal of community that is unable to accommodate plurality, difference, and different realities (Young, 1990). This approach is a conceptual straitjacket for researchers, rendering many questions "unaskable" because they cannot be accommodated within traditional methodologies. By denying plurality, differences, and different realities, membership in a profession (and development of professional expertise) appears to require the erasure of identities arising from race, class, and gender.

Much of the current literature focuses on a long list of ills that plague CPE, but makes few recommendations on how to build professional membership and competence that truly addresses the challenges of the 21st century. Collins (1991, 1998) informs us, and Eraut (1994) concurs, that CPE needs more emancipatory strategies and practices.

As Foucault (1977) noted, "Knowledge derives not from some subject of knowledge, but from the power relations that invest it. . . .All knowledge is political" (p. 220). Foucault, among other critical theorists, viewed power as being embedded in existing social structures and discourse, rather than the possession of those who then

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use it to regiment and control others hegemonically. Hence, knowledge construction, through research methodologies that have the potential for being emancipatory rather than oppressive, provides rational grounds for:

1. Requiring that differences in gender, race, ethnicity, religion, and sexual orientation become central to the concerns of the professions, i.e., in the day-to-day life of a professional, the impact of practices on different groups and the implications of these practices for whole communities must be considered.

2. Directing us to examine the particular ways in which political, cultural, and institutional practices within the professions support or injure various groups.

3. Questioning professional knowledge in such a way that the institutional structures associated with housing bodies of expert knowledge (hospitals, school, courts, professional associations), that are organized on the basis on the dominant cultures values and norms, are examined for their commitment to social justice.

4. Becoming border crossers; that is, "to understand Otherness in its own terms" (Giroux, 1992, p. 23). This is made possible by exploring and articulating the obstacles erected by power, authority, membership in professions, and control over resources.

In 1988, Cervero asserted that the critical viewpoint was crucial to sound practice in CPE because it holds ethical and political considerations alongside technical expertise as equally important dimensions of continuing professional education and development. Further, adult educators who design and deliver CPE courses in a variety of settings should have little difficulty in incorporating sessions for attendees in which they are asked to critically reflect upon the questions. "Am I doing good (for society)? Or, am I doing well (for myself)?" Given the prevailing view among many adult educators that knowledge is socially constructed, serious reflection on one's contribution to the growth of civil society while seated in rows of a well chilled meeting room for CPE updates seems almost ludicrous (Boud and Walker, 1998). Perhaps it is time to give up the notion that knowledge is "constructed" and replace it with the idea that the products of culture (knowledge is one of them) are the results of a negotiation with a lifeworld of which we are a part. Further, the various group identities that evolve out of these negotiations inform us that classrooms that don't include our lifeworlds and the power relations that exist within them do little to support reflective dialogue on our knowledge constructions (Collins, 1998, p. 71-72).

Research Question

Two aspects of Cervero's articulation of current trends and issues in CPE hold particular significance for this inquiry: (1) increased collaboration among providers such as universities and workplaces, often in partnership with professional associations; and (2) the incorporation of continuing education as part of state regulatory mechanisms of licensure/certification (2000, pp. 6-8). Both of these trends highlight the reality that CPE is now highly corporatized, institutionalized, and regulated – no longer part of many practitioner's lifeworlds (if it ever was) and carried out with the precision of technical rationality.

To begin the exploration of just one of the research propositions noted above (#2), we investigated: *In what ways and to what extent do professional associations and their CPE curricula support cultural reproduction, social integration, and socialization to an objectivist view of the professions?*

Theoretical Framework

A major premise underlying the research propositions and the exploratory research question stated above is that a theoretical framework for researching the ways in which CPE and its diverse providers (with the workplace and professional associations as the most prevalent suppliers) is lacking. Although critiques that have contributed much to the topics of professionalism, CPE, and program planning exist such as, Illich et al., 1977; Cervero, 1989; Cervero & Wilson 1994, 1996, 1998; Collins, 1991, and McKnight, 1995, they tend to fall into two categories. First, Illich et al. (1977), Collins (1991), and McKnight (1995) provided very useful critical treatises on the meaning of professionalism as an ideology and its effects on modern society. Second, Cervero and Wilson (1994, 1996, & 1998) focused on the negotiation of power and various interests in responsible program planning. Eraut's work (1994) bridged the gap a bit more in terms of empirical research on how professionals construct knowledge to improve practice (often through CPE) but it did not satisfy the need to look across professions as most of his research

examined the staff development of K-12 teachers. It also did not examine the broader societal implications of CPE practices in terms of cultural reproduction. The primary goal then of these four propositions and the exploratory research question is to stimulate new empirical research on the ways that business-as-usual CPE practices improve practice, not only by steadily advancing technical expertise, but also by examining the ways in which that expertise contributes to social justice. If this goal is achieved, it may provide the foundation for a more comprehensive theoretical framework.

Data Collection and Analysis

First, literature not routinely considered in researching professional associations and CPE was reviewed and the findings are presented here in the section titled, *Critical Literature Review*. The purpose is to present a "counter-story" to the idealized notion of the professions as it relates to health care in the United States. Counter-stories, as Haraway pointed out ". . . are not any more 'real' than those widely circulated on an everyday basis, (but) they do engender situated knowledges that offer different values, perspectives, and understanding of everyday reality" (1996, p. 255). And, as Shank noted, "The most important reason to adopt new research methods is to open up the inquiry process" (1994, p. 349).

Second, a web-based document content analysis and phone follow-up was undertaken to compare CPE curricula of associations whose membership comprises a variety of diverse interests within the professions of medicine and law. These two professions provide a purposive sample in several ways. First, they share a similar historical developmental path including the timeframes within which they founded professional associations, adopted licensure requirements, standardized curricula, and limited entry to the profession members of marginalized groups and subsequently modified those practices (Illich et al., 1977; McKnight, 1995; Foucault, 1984). Further, their professional associations are "resource rich" in comparison to many others and therefore maintain regularly updated, highly sophisticated websites where members and the public-at-large may view their benefits and conference programs. These two professions' associations are identically structured in terms of the mainstream associations (beginning with the name "American") and their "National" affiliates comprised of numerous groups organized around their ethnic, racial and/or gender group identity. Finally, as Eraut (1994) pointed out, these two professions enjoy a shared perception in the public eye as the true professions, to which all other aspire. These shared characteristics facilitated an exploratory comparison.

In terms of limitations of these findings, given that the purpose of this literature review and exploration of CPE curricula is to stimulate new dialog among CPE and HRD scholars with the hope of fresh theory generation, generalization of the results to modify current practice lies outside its scope. Accordingly, what follows was informed by the work of Brookfield (1993, 1995) in which he built on the ideas put forth by the contributors to the Frankfurt School of Critical Social Theory (Habermas, Adorno, Horkheimer, Marcuse,) and the "pedagogy of hope" proposed by Freire (Freire and Faundez, 1989). Consistent with these frameworks, the purpose of this review is to open up spaces in which dominant ideas and unfair practices can be contested. As Brookfield noted (1993), "Sometimes all we can do is focus on how the damage inflicted by a program, policy or practice can be kept to a minimum. At other times we have the chance to develop new structures that seem more democratic or to create spaces in which open, critical conversation can take place" (p. 79). But, first we must ask the questions and understand what we find.

Critical Literature Review

Politics, economics, and medicine share a long history that can be traced back to the eighteenth century in Europe. Foucault's (1984) review of the politics of health in eighteenth century France examined how two distinct strands of healthcare--the private, market enterprise of the doctor/client relationship and the political/governmental goals to control the health of the labor force--converged, transmuting Western medicine into the system today. Medical expertise was a valuable skill during this era in France and Europe. Government power coalesced, and 'the public' became a defined entity to be studied, examined, and controlled. Overseeing the health of the working class was an important function for doctors in the eighteenth century. They assumed administrative positions within the power structure, dispensing advice to the work force on personal hygiene, healthy eating, and living habits. Doctors were not merely becoming separated from the working and marginal classes. They became the "overseers" (p. 171). Today, the healthcare hierarchy is well entrenched. Those with a 'doctor' appellation occupy the top rung, followed

by nursing and the allied health professions. Those who 'diagnose' control entry into the healthcare delivery system while nursing and the allied health professions exist in a subordinate position of an authoritarian system.

The Effects of Oppression on Healthcare Professionals

Freire (1988), noted that one major characteristic of oppression is that the values and norms become internalized in those they dominate. The oppressed become 'hosts' of the dominant society's ideology. In most cases of oppression, the dominant group looks and acts differently from the subordinate group--male doctors versus female nurses, male dentists versus female dental hygienists, male psychiatrists versus female social workers--and the characteristics of the subordinate group become devalued. He asserted that, "Submerged in reality, the oppressed cannot perceive clearly the 'order' which serves the interests of the oppressors whose image they have internalized. Chafing under the restrictions of this order, they often manifest a type of horizontal violence, striking out at their own comrades for the pettiest of reasons" (p. 44).

Freire further posited that this process of internalization leads to personality characteristics of self-hatred and low self-esteem in the dominated group. Individuals feel hostility toward the powerful, but those experiencing the effects of this hierarchy are not able directly to express it. The oppressed complain vociferously to each other, but react submissively when confronted with power. Unleashed aggression within oppressed groups can manifest in self-destructive behaviors. These characteristics stem not only from dependency, but also from hatred of their 'own kind' and a desire to be like the oppressor. As Freire concluded, "it is the rare peasant who, if promoted to landowner does not become the tyrant of the peasant" (p. 28).

The Business of Continuing Professional Education

Expanding technologies, information about disease, and new treatment modalities are increasing exponentially. Practitioners who have been in the field for years can be so far behind the times as to be dangerous. Hoffman (1980) described continuing education as a component of adult education, and further defined continuing education within the healthcare delivery context as, a system of education that is a subsystem of the health system, because its clients either support or deliver health care services. Similarly, licensed professionals view CPE as an integral part of being a professional, however, not everyone voluntarily seeks further education Practitioners, therefore, turn to the state for assistance in requiring it. Since a primary responsibility of the legislature is to protect the health, safety, and welfare of the public, legislators conclude that they are fulfilling their duty to the public by requiring continuing education. State laws are amended requiring licensees to accumulate mandatory continuing education (MCE) hours during each licensure period (Houle 1980, p. 59). MCE has been a financial boon to the professional associations. Associations lobby the state legislature to require continuing education. After amending the laws or even promulgating new rules, the legislature or similar regulatory board creates a list of 'approved providers' of CPE. Besides educational institutions, local, state, and national level professional associations are typically approved providers. The associations can benefit from MCE because non-voluntary attendance in CPE courses provides virtually guaranteed revenue.

Another issue for professional associations surrounds the educational viewpoint of their CPE courses. Cervero and Wilson (1994) distilled the various views of program planners into three common views, the classical, naturalistic, and critical viewpoints (p. 14). From the perspective of CPE, the critical viewpoint has only recently emerged and it argues for the abandonment of the idea that there is consensus regarding professional quality. As Cervero asserted, "Because there is a lack of consensus in most situations, the purpose of continuing professional education is to help professionals understand the ethical and political, as well as the technical, dimensions of their work (Cervero 1989, p. 519). Given that the leadership within professional associations often are the primary authors of policy and programs, associations will have difficulty planning courses that challenge the status quo and, therefore, the leadership. For CPE practitioners within professional associations there are major hurdles to overcome in constructing programs that will support critical thinking that leads to self-reflection, and ultimately to improvement of practice not just instrumentally, but democratically. As Cervero and Wilson (1994) pointed out "It is especially difficult to envision how program planners might practice this [critical] viewpoint in organizations that are not committed to the particular political and ethical agenda espoused in the theories, a common situation for many educators of adults. For example, how are educators who are personally committed to these goals to plan programs in the face of an organizational mandate to make a profit?" (p. 24). Although program planners would do well to consider grass roots members and nonmembers when constructing CPE courses, current association

partnerships and allegiances to regulatory and accrediting bodies, make this unlikely. Education policies need to be grounded in the goals and concerns of those 'at the bottom' of the association hierarchy because the leadership in oppressive groups may not represent the grass roots. Freire (1988) noted that this phenomenon is consistent with oppressive theory, "As the oppressor minority subordinates and dominates the majority, it must divide it and keep it divided in order to remain in power" (p. 122). Divide and rule are destined to be the outcomes of leadership selected from the elite. Another dimension of divisive leadership is the current practice of leadership training for association officers and board members. Again, Freire suggested:

The same divisive effect occurs in connection with the so-called 'leadership training courses', which are (although carried out without any such intention by many of their organizers) in the last analysis, alienating. These courses are based on the naive assumption that one can promote the community by training its leaders--as if it were the parts that promote the whole and not the whole which, in being promoted, promotes the parts. (p. 123)

Associations plan programming based on policies adopted by the leadership; however, profitability is a primary consideration in course planning. Course planning that authentically responds to the concerns of grass roots professionals should be supported, but as Brookfield (1985) cautioned, "It is naive to presume that because adults are gathered in a class that critical adult learning is being facilitated" (p. 47). Whether CPE courses that create critical learning environments will lead to liberation for healthcare professionals is unknown. To date, liberation has not been achieved by the absence of critical learning within CPE.

Results: CPE Curricula Comparative Analysis

Annual conference programs provide a fascinating snapshot of the role of CPE in relation to professional association member interests. Revenue from conference registrations provides over half of the annual income for many associations making the match between member interests and needs and CPE offerings a financial imperative. Although the critical literature review focused only on healthcare, we broadened the CPE curricula comparison to medicine and law to add to the knowledge of CPE trends and practices across professions.

Table 1. *Glossary of Associations*

	Medical Associations (Physicians)	**Bar Associations (Attorneys)**
American (mainstream)	✓ (AMA)	✓ (ABA)
National		
• African American	✓ (NMA)	✓ (NBA)
• Hispanic	✓ (NHMA)	✓ (NHBA)
• Asian Pacific		✓ (NAPBA)
• First Nations	✓ (NFNMA)	✓ (NFMBA)
Minority Women's (loosely affiliated)	✓ (NMWMA)	✓ (NMWBA)

A comparison of the annual conference programs over the last two years (2000-2001) for the following professional associations (see Table 1) was completed through a web-based search.

Information gleaned from all the CPE program coordinators from the affiliated National Bar Associations, and two from the affiliated National Medical Associations indicated a growing desire to standardize program formats into "Tracks" identified with a common nomenclature. This member-requested initiative is designed to help members (many of whom belong to several of the National affiliates) quickly analyze sessions of interest.

Although the annual conference CPE curricula of the AMA and ABA are also organized by tracks, (see Tables 2 and 3), the track titles indicate different emphases from those of the National Association affiliates of both professions.

Table 2. *Legal Profession Annual Meeting CPE Curricula 2000 and 2001*

Tracks	ABA	NBA	NHBA	NAPBA	NWMBA	NFNBA
Professional Development	✓	✓	✓	✓	✓	✓
Solo & Small Firm	✓	✓	✓		✓	
Corporate	✓	✓	✓	✓	✓	✓
Technology	✓	✓	✓		✓	
Government & Legislation	✓	✓	✓	✓	✓	✓
Association Leadership	✓	✓	✓		✓	
Cultural Competence		✓	✓	✓	✓	✓
Social Justice/Advocacy		✓	✓	✓	✓	✓
Family Law		✓	✓	✓	✓	

Table 3. *Physicians Annual Meeting CPE Curricula 2000 and 2001*

Tracks	AMA	NMA	NHMA	NWMMA	NFNMA
Clinical Updates					
• Chronic Disease/Auto Immune		✓	✓	✓	✓
• Mental Health		✓	✓	✓	✓
• Breaking News	✓•	✓	✓	✓	✓
Policy Issues					
• Federal Legislative Initiatives	✓	✓	✓	✓	✓
• Organized Medicine & Future Health		✓	✓	✓	✓
Cultural Competence					
• Principals and Practices		✓	✓	✓	✓
• Systems Change		✓	✓	✓	✓
• Gender Perspectives		✓	✓	✓	✓
• Culture & Language & Health		✓	✓	✓	✓
Research Models					
• Alternative Epistemologies			✓	✓	
Career Development					
• Mentoring	✓	✓	✓	✓	✓
• CPE and You	✓				
• Student Sessions	✓	✓	✓	✓	✓
Association Leadership	✓	✓		✓	

• All new developments across medical/surgical areas are handled as "Breaking News."

The organizing principle used to create Tables 2 and 3 was ease of access. In other words, sessions were attributed to various associations' conference programs when they appeared to clearly relate to a particular track both in terms of the session description and the organization of the program. Conference programs that now feature a "Cultural Competence Track" included a description of the track as a whole and some statement indicating the previous year's interest in these topics. It is important to note that the CPE curricula of both the AMA and ABA include sessions on diversity but they tend to focus on the needs of diverse clients, not those of the professional membership. Also, these sessions are subsumed under broader concerns around clinical issues, such as the study of diabetes within a certain population or how the death penalty impacts various minority groups.

Phone interviews revealed that program planners are responding to the tragic events of September 11, 2001. Visits to the homepages of the ABA and AMA revealed position statements and anticipated additions to the 2002 conference programs related to "Disaster Response." A slightly different response emanated from several of the

National Association affiliates (medical and legal). While position statements and messages of sympathy are all but universal, phone follow-up with program coordinators of the National Bar Association affiliates confirmed that their programmatic thrusts would be on the effects of racial profiling – a repeat topic for several years now, but even more critical since September 11.

With regard to the Professional Development Tracks, the ABA and AMA session descriptions indicated a "one-size-fits-all" approach regardless of the topics (mentoring, financial planning, career planning, etc.). Alternatively, Track descriptions for the National Medical and National Bar Association affiliates feature the particular minority group interest and position the session topic within that context. Disturbingly, the ABA annual meeting program runs *concurrently* with the ABA Commission on Racial and Ethnic Diversity (not shown on Table 2) and this special interest group's program includes many sessions that are very similar to the ones found on the conference agendas of the National Bar Association affiliates. *However, attendance at these sessions precludes attendance at the general membership sessions, many of which are devoted to technical updates presenting an unfortunate dilemma for conference attendees.* When asked about this conundrum, the ABA program coordinator acknowledged the decision point but noted that the previous solution (a pre-conference) did not generate enough attendance to be continued and the concurrent programs seemed to be the "perfect" solution. Further, the coordinator noted that, "there really is no problem because members who miss technical update sessions can always purchase audio and video tapes of the sessions." Scheduling decisions driven by the desire to optimize conference revenue, at the expense of other outcomes, create conditions of *de facto* segregation in this example. To the extent that conferences create spaces for dialogue among participants, the politics of scheduling play a substantial role in enabling or preventing inter-racial and cross-cultural communication. Brookfield has devoted considerable attention to the need for adult educator's (and we include CPE practitioners among them) to examine the hegemonic aspects of their practice and calls for an examination of the ways in which practice perpetuates inequities and the ways in which it is discriminatory and anti-democratic (1995). Conference programs provide an important publicly available framework for undertaking this examination.

Conclusions, Implications for Research, and Contributions to HRD

Returning to the research question, *In what ways, and to what extent do professional associations and their CPE curricula support cultural reproduction, social integration, and socialization to an objectivist view of the professions?* Annual meeting programs reveal a color-blind stance on the part of the AMA and ABA. Placement of the ABA Commission on Race and Ethnicity program as a concurrent offering presents disquieting evidence of the degree to which CPE practitioners are complicit in cultural reproduction. Partially in an attempt to offset asymmetrical power relations, the National (Medical or Bar) Association affiliates offer racially and ethnically sensitive CPE and explicitly promote a social justice agenda through their mission statements and their annual meeting programs. Continuing analysis of both professional association educational programs and membership demographics will help reveal the extent to which the association agendas are "preaching to their own choirs."

The purpose of presenting the initial stages of this research is to call attention to the issues raised in the four propositions posed early in this paper, particularly in relation the second proposition. There is a paucity of research that investigates CPE from a structural problem-posing rather than an instrumental problem-solving stance. Both conference programs and conversations with program coordinators (in mainstream and minority-focused associations) confirmed that sessions are selected and agendas are assembled with some attention to the association's mission, but with an overarching goal of maximizing attendance, hence revenues. And, it appears at least from session titles, that the National (Medical and Bar) Association affiliates experience social justice issues as more central to their practice than do the American (Medical and Bar) Associations.

Recently, Cervero (2000) posed the following question as the number one critical issue facing the field of CPE. He asked, "Continuing education for what? The struggle between updating professional's knowledge versus improving professional practice" (p. 8). Somehow, the professional obligation to update knowledge, improve practice, and commit to a more just society through practice have become competing rather than synergistic goals. This competition is institutionalized by the market-driven forces that retain sessions and topics based on attendance.

The problems posed by this analysis are closely aligned to those facing the AHRD Task Force on Standards and Ethics and the consideration of the role of such codes in improvement of practice. Currently, scholar/practitioners engaged in CPE affiliate with organizations within their individual professions, thus dividing the field of CPE into many diverse units. There is a need for a national and international affiliation where CPE providers and researchers can come together to share research and practice ideas. Ruona and Rusaw (2001) envisioned AHRD as a space for

creating shared vision and values, fostering changes in behavior and conduct, creating rewards and incentives for ethical conduct, and promoting and disseminating basic and applied research (p. 227). To the extent that this space can be extended to the research and practice of CPE, the potential exists for a richer consideration of HRD through the narrower lens of CPE.

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The Ambushed Spirit: Peace, Violence, Downsizing, and Implications for HRD

Daniela Truty
Northern Illinois University

The purpose of this study was to investigate the phenomenon of downsizing from the perspective of the person who was separated from the job, and to explore its connection to violence and peace. Findings suggest that the experience of downsizing is not uniform among affected employees; rather it is dependent on contextual factors and other constitutive elements of what it means to be a person in the work place.

Key Words: Downsizing, Violence, Peace Studies

This paper is part of a larger study I plan to complete in Spring 2002. I was one of 1,100 white-collar employees in a large midwestern automotive manufacturing firm, separated from the job at the beginning of an industry downturn in August 2000. From my perspective, this downsizing was an act of violence as real as other types of workplace violence. I questioned whether anything existed in the literature to support my perception of downsizing as violence, if my colleagues described experiences similar to mine, and how it was that organizations were permitted to downsize in this way with virtual impunity from employees, lawmakers, and the general public. As an HRD professional in a corporate or academic environment, what did the realization that downsizing could be perceived as violence mean for my work?

Questions and Theoretical Framework

I approached this study with the following questions: From the perspective of the person separated from the job: How does he or she describe the experience of downsizing? What is the relationship between his or her downsizing and violence? And how is it that downsizing appears to have become so accepted? To frame this study, I consulted four main bodies of literature: downsizing, violence, peace studies, and organizational studies.

Downsizing

News, commentaries, and stories about involuntary job loss, mergers, acquisitions, takeovers, re-engineering, reorganizations, reductions in force, firings, and layoffs, abound in the media, popular press, and investor web sites. A review of the literature on downsizing resulted in a plethora of work viewing downsizing from different perspectives and grounded in disciplines including Human Resource Management (HRM), Human Resource Development (HRD), Labor and Industrial Relations, Business Ethics, Applied Social Psychology, Philosophy, Management Studies, Family Counseling, Career Development and Counseling, Economics and Finance, and Religious Studies. Subjects of this writing have been professionally, racially, ethnically, and otherwise diverse.

Interest has focused on coping with downsizing and reemployment, particularly as the two intersect with other variables, i.e. health and demographic, for example. Most of the writing glosses over felt experiences, concentrating on how to downsize the "right" way. Writing about victims of downsizing has been descriptive, or analyzed from a clinical, psychoanalytical standpoint. While the employees' words provide the content for these analyses, there appears to be a separation between researcher and researched, subjects and objects, observer and observed, interviewer and interviewee. The literature stops short of in-depth exploration of differences in the way downsizing is experienced. None overtly connects downsizing with the discourse of violence and peace studies.

Violence

The literature on violence, except for a cursory remark by Stanage (1974), has not been explicitly conjoined with the experience of downsizing. For the most part, writers have been preoccupied with defining violence, situating it within the context of evil (Karake-Shalhoub, 1999), the Myth of Satan (Hallie, 1974 & Rubinoff, 1974), and even the Holocaust. It appears that what constitutes violence for one individual may not for another, with the exception of blatant acts like murder; rather, definitions seem to be dependent upon individual perspective (Stanage, 1974, 1981). In spite of the difficulty involved in arriving at an acceptable definition, it is important to define violence within the complexity of human experience, so that its occurrences can be reduced, if not eradicated as "forms of human bondage" (Stanage, 1974, 1981).

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Violence has been discussed in terms of workplace violence, domestic violence, street violence, as well as armed violence. Usually violence is portrayed as physical violence, although psychological and emotional violence are sometimes cited, such as in the areas of child, family and spouse abuse, and psychological warfare, i.e. PSYOP. Rarely is violence analyzed holistically, affecting mind and body simultaneously; yet, Stanage (1974) holds that it seems unlikely that one could violate one's body and not affect the mind.

In the workplace, violence is presented as a risk management, legal, and HRM concern. It is associated with harassment, stress management, drug and alcohol abuse, disgruntled employees, and spillover effect from a turbulent home life. When violence is coupled with downsizing, it generally refers to hurt and angry employees who seek revenge against those who terminated the relationship.

It is possible to find some work on institutionalized violence although it tends to be mixed with discussions about violence as armed conflict (Arendt, 1970; Downs, 1995; Rubinoff, 1974; Stanage, 1974), domestic abuse, or philosophical investigations of evil, harm, force, authority, power, and strength (Arendt, 1970; Stanage, 1974). To my knowledge, this study is among the first to situate violence within the context of downsizing as perceived by those who were separated from the job—not as a response to downsizing, but in the practice of downsizing itself.

As I situate violence within the context of downsizing, I consider the social context of this workplace operating according to its constructed civil order. Stanage (1974) cites Berger and Luckmann when they assert that: "'Man is biologically predestined to construct and to inhabit a world with others. This world becomes for him the dominant and definitive reality'" (p. 215).

Pivotal to this study are Stanage's (1974) definition of violence "...as an 'out-of-order' act or event" and the Theory of Violatives. "These violatives are phenomenological distinctions within occurrences of violence—distinctions that are articulated by our language when this language is carefully explored..." (p. 208). According to Stanage (1974), occurrences are classed as violative when perceived to dis-order the civil order within a given society. One learns about violative events by situating, or locating, them within a given social context (pp. 209-10).

The phenomenon of violence can be explored according to its instrumentality within a social context. Gradations of violence can be situated along a continuum between civility and barbarity, keeping in mind that violence can be constructive or destructive in outcome or intent. When an occurrence is perceived to dis-order the civil order of a social group toward civility, the occurrence is described as constructive; conversely, when the civil order is dis-ordered away from civility and toward barbarity, it is destructive (Stanage, 1974, p. 215).

Stanage unveiled the Theory of Violatives in 1974. In 1981 he developed it further to include ways in which violative occurrences can dis-order the civil order as defined by a person's or social group's "proprietary relevancy structures." He called these unwelcome occurrences "thrusts", and names them distrusive, intrusive, obtrusive, retrusive, and subtrusive, i.e. DIORS (pp. 92-4). Together with the Theory of Violatives, the DIORS violatives extend the vocabulary of violence within the context of human phenomena, providing a commonly understood language with which to understand and discuss more precisely the different gradations of violence.

Peace Studies

Important to this study was the work of Johan Galtung, founder of the International Peace Research Institute in Oslo. In order to understand peace, Galtung claims, it is imperative that one study violence, since violence is the absence of peace, and, peace the absence of violence (Galtung 1969). Violence refers to the gap between potential and actual satisfaction of four basic human needs. Phenomena that widen that gap constitute violence. Through extensive research, Galtung concluded that these four human needs consisted of survival, well-being, identity, and freedom needs (Galtung, 1990).

Originally, Galtung's typology of violence had six dimensions: personal/structural, direct/indirect, and physical/ psychological. In 1990, Galtung added a seventh, cultural violence. Cultural violence is comprised of institutions that make violence seem all right, or at minimum, not so bad. Examples of contributors to cultural violence include religion, ideology, language, formal science, law, and the media.

Organizational Studies

Institutional theory was particularly relevant to this exploration of downsizing. Institutional theory suggests that isomorphism is a major characteristic of organizational behavior and definition, resulting in organizations becoming increasingly similar to each other, adopting homogeneous norms of behavior and structure. Di Maggio and Powell describe three types of isomorphism: coercive, mimetic, and normative, i.e. when organizations impose specific structures or rules for behavior, when organizations mimic each other's strategies, usually in response to the nebulous or unknown, and when organizations adopt or accept structures or strategies because powerful actors

become their proponents (Di Maggio & Powell, 1983, cited in http://www.stanford.edu/~krollag/org_site/encyclop/instit/brdg/stgy.html).

Method

I designed a qualitative investigation to address my research questions. Twenty-eight white-collar employees participated in this study, including myself. We were separated from the same organization, within the August 2000 timeframe, and represented seven company locations in this midwestern metropolitan area. Recruitment occurred through activities sponsored by the outplacement consulting firm, contracted by the organization to assist separated employees during the transition. Outplacement staff guarded identity and numbers of people who were downsized; however, I was able to generate a "Colleagues in Transition" list, which included approximately 67 employees. All were invited to participate in this study; 28 elected to do so. Candidates were limited to this metropolitan area because of ease in arranging meetings, and to minimize potential impact of dissimilar job markets on re-employment.

Data were derived from multiple sources, including a one-on-one in-depth conversation with each participant lasting from 1.5 to 4 hours, demographic profile form, two participant journals, my own field notes, two descriptive documents prepared by two participants, electronic communication with some of the participants, the company's annual report, as well as corporate news and comments from the company's investor message board.

Conversations were face-to-face at a location of the participant's choice. Three were held by telephone. I maintained written field notes throughout the conversation process, and soon after transcribed the taped conversations verbatim. Following each transcription, the document was submitted to the participant for verification of accuracy, editing, or additions. Conversations were influenced by the phenomenological method (Stanage, 1987). Moving back and forth eductively and constitutively, we sought to arrive at an in-depth understanding of content and intent, particularly of what constituted the relevance structure of each of the participants, and how they perceived order and dis-order within their work communities. Conversations began with a broad question, i.e. "bring to mind your stay at the company, and tell me the story of your downsizing". I used four prompts, "l" language, "v" violence, "sc" social construction, and "p" person to guide the discussion toward specific questions, if the conversation hadn't addressed them already.

Analysis

Analysis was influenced by hermeneutics, because it allowed for an interpretative process, inclusive of my own biases, experiences, knowledge, perspective, and understanding of the literature (Thompson, 1997; Thompson & Haytko, 1997; Thompson, Locander, & Pollio, 1990). Hermeneutics makes no claim of objectivity, generalizability or replication of these findings. Themes emerged from multiple readings of texts and transcripts, moving iteratively from part to whole to the larger whole, to the total and back again (Cotte & Ratneshwar, 1999; Glaser & Strauss, 1967), frequently refining my interpretation of what the participant was trying to say. Other written documents were analyzed in similar fashion. I wrote ideographic summaries per participant, returning to each as needed for further clarification (Cotte & Ratneshwar, 1999). I paid particular attention to the language used by the participants in describing their experience, highlighting words, phrases, and sentence constructions suggestive of the violative nature of downsizing (Stanage, 1969), from which I would develop Stanage's Theory of Violatives (1974). The demographic profile forms were useful for checking age distribution, longevity, as well as diversity.

Findings

It quickly became apparent that in order for the participants to tell their stories, they needed to contextualize them within the employment relationship. A temporal downsizing horizon emerged including Before, During, and After for everyone, and an Interim for some. "Before" applied to the most recent job with the company, sometimes earlier than that, and set the stage for the perceived impact of the downsizing event as well as the sense making activities that would ensue. Job experiences ranged from "a difficult stay" (Dale) to a "job of convenience" (Steve).

"During" referred to the downsizing event itself, from official notification of dismissal to final exit from the company. Participants spoke of three components, the anticipatory period, selection criteria, and the process, i.e. mechanics. Of these, the selection criteria appeared to be most troublesome. Reactions were mitigated in part by whether the selection was expected or unexpected, well communicated or not, fair or unfair, and credible or not.

"After" comprised the period from final exit to the day of our conversation. Activities during this time included sense-making, healing, learning, retiring, and seeking.

The official or unofficial "Interim" was common to few employees. Official interims began with an explicit notice of impending termination, not necessarily occurring on the designated downsizing day, and usually extending from "D-day" (Steve) through January 2001. Unofficial interims began prior to the official downsizing date, and consisted of indirect statements or managerial behaviors that unquestioningly meant downsizing to the participant. Of the 28 participants, the interim was relevant to five. The interim experience was characterized either by struggle to stay on or anticipation of something better to come.

Three different reactions to the downsizing emerged: "Layoff was a godsend to me" (Dale), "It happened: move on" (Peter), and "We were hurt" (Patrick). People with the first two reactions would have preferred to stay until they decided to leave "if they had their druthers" (Bob). Those for whom the layoff was a godsend described their most recent job as difficult, so much so that they suffered psychosomatic symptoms that would be resolved only upon severing the relationship. They saw no choice but to leave the company, had they not been downsized.

Those with the second reaction appeared to be less severely impacted, either because the job was not challenging enough in quality and/or quantity; they believed that they were undervalued by the company; or because the downsizing was accepted as a neutral event in their work lives. They saw downsizing as change, a needed transition to a different professional phase, or an opportunity to retire early, especially since economically they had no difficulties. People in this group tended to linger on the job because it was comfortable for them, so why not.

Of the 28 participants in this study, approximately 20 perceived their experiences as hurtful. People in this group could be evenly divided into two groups. One group wanted to stay with the company even though they were aware of interpersonal or professional problems with their immediate boss or boss' boss, the organizational structure, or other job related issues. The employee's desire to stay with the company superseded the challenges he or she was experiencing, hoping, sometimes struggling, to resolve the difficulty. The second group wanted to stay with the company, and was unaware of bothersome issues. Of these, some described recent organizational/structural changes, such as a new director of their functional unit, who brought new philosophical and operational preferences to bear on the job. Even though they were aware of the differences between the past and the present, these participants did not equate them with the necessity for their downsizing. Others did not expect to be selected at all, their downsizing had come "out of the blue" (Trinity), were happy with the job they were doing, and saw no reason for their demise. This group was searching for meaning.

The selection process resulted in ruminative activity among most participants. Perceived reasons for selection included: boss or boss' boss did not like me; my performance did not meet with their expectations; my project was discontinued due to budget cuts and restructuring; my department had to cut numbers, my job was divided among others, and my position was eliminated; the company did not have any or enough work for me to do; they made a mistake: the decision makers did not know me; new organizational reporting structure with new philosophies; I spoke up when something seemed wrong to me, and/or I did not comply with their wishes to transfer to another department; and my position was never slotted as an FTE (Full Time Equivalent).

Participants referred to their experience using different terminology, including downsized, laid off, axed, severed, cut, and separated. Regardless of which word was selected, I believe that a common connotation of each was that a union had been divided or dissolved, that something had changed, that order had been dis-ordered, that dis-order had been re-ordered, and a connection had been dis-connected, i.e. separated. These expressions demonstrated transitive grammatical structures, suggesting that subjects, known or unknown, had acted upon objects. In this case, the "objects" were once employees. Issues of power, control, freedom, and agency are located in this concept. The stories of these 28 participants suggest that they were unwelcomely separated from relationships, belonging, identity, this job, daily structure, career trajectory, and security. For Dale and Alexandra, however, the downsizing was preferable to the toxicity of the jobs. For all, perceptions of the downsizing experience appeared to be dependent upon personal perspectives and individual life contexts.

"Perspective" is derived from the Latin that means looking through, in this case, looking through the lenses of that which is important to individual persons. Examples of perspectival and contextual factors that influenced unique experiences of downsizing included personal values, upbringing, age at time of downsizing, family and/or personal health concerns, perceived and/or reported job performance, longevity with the company, continuation of benefits, perceived fairness of the decision and selection criteria, quality of stay, job search skills, issues of race, class and gender, developmental life stage, transferability of job skills, and personal sense of self.

Language

Stanage (1969, 1987) refers to linguistic phenomenology as a heightened awareness of the language used by persons to reveal themselves to others. Without claiming to be a trained linguist or discourse analyst, I noted the language used by the participants to tell their stories. The language tended to be vivid, filled with transitive

constructions, invoking words commonly understood in U.S. culture as connotative of violence, and figurative expressions consisting of similes and metaphors. Participants used words such as hurt, shun, cut, devastate, sever, whack, pluck, crush, axe, fire, and tear; transitive constructions including, I was laid off, I was separated, I got whacked, I was fired, and we were hurt; similes such as, I felt like a criminal, I felt like an idiot, like you were being ripped apart inside, I was like a walking dead man, ghost-like, like the death of a parent, like an outcast from society, I was like a bug in a jar, it felt like a gut shot; and metaphors like, when the hammer fell, the chain around my neck, Ole Nellie was a good ole horse, we were huddled together in the foxhole, you flunked and we didn't, I was a stigma to them, the bullet hit me, and my magic shield did not protect me this time. Linguistic constructions like these betrayed the suddenness, abruptness, unexpectedness, unwelcomeness, and the physical and psychological pain of this experience.

Those for whom downsizing had been a godsend expressed themselves in words, phrases (and gestures) of elation, like Thank God, it's over, the downsizing was a godsend to me, or a victorious Yes! With arm raised high. These revealed a sense of relief from a trying experience, a re-ordering of dis-order.

At times, the language suggested a disparity of power, coercion, finality, reification, and deception, i.e. there is nothing you can do, it's a done deal, the decision was made, no matter what I did or said it wouldn't change their decision, who knows what the real truth is, it's a game, if you destroy anything on the way out you will not get your benefits, got rid of, I was expendable, and you'll never know. Some participants spoke of assaults on their identities, using words such as humiliated, embarrassed, and insulted. Others mentioned words of alienation, such as excluded, I was left out of, I felt alone, and I am no longer a part of. Some used this language deliberately, carefully selecting the words and expressions to convey their desired messages. Others appeared to be less conscious of having chosen these words and why. Some used words that they had heard others speak in similar situations. Others transferred words from a large city's neighborhood in which they had grown up. Some drew from their interest in competitive sports, i.e. references to game and competition. Others selected words from history, particularly military history; or from movies, like "Braveheart". All appeared to reach for words outside of the whitewashed vocabulary of downsizing, re-engineering, restructuring, delayering, rightsizing, reorganizing, and other examples of corporate speak. No one used the word peace; no one used the word violence (as I had expected), even though the language used and the experiences described suggested gradations of violence.

Long-term employees reported that they had witnessed approximately seven downsizings since 1975. Most participants believed that the decision makers knew that the downsizing would negatively impact their lives, and that they did not care. How was it then that the organization downsized anyway?

Few problematized the decision to downsize, some even defended it—even after describing personal experiences ranging from unpleasant to painful. This reaction was contrary to my expectations, since I was certain they would view downsizing more critically as a result of their experiences. Perceived reasons for this downsizing included, for example: pre-emptive move for survival; it was easy and quick; in response to the stock market; to cut costs; to ensure or enhance executive bonus; because of uncontrolled growth in the boom time; re-build damaged credibility from the 80s; mismanagement; everyone else is doing it; reduced costs easily visible to the financial community; low sales mean low funds available for people; lack of proper planning; lack of fiscal responsibility in the good times; not smart enough to think of another way; employees viewed as filling positions instead of as persons; consultants persuaded people in power that this was the right decision; if people in power decided to downsize, managers beneath them would not risk a good job by challenging; company needed to look good for possible take-over; to thwart the competition; old leadership bearing old baggage; and they've done it like this before, it worked, so why not do it again.

Among perceived reasons for general acceptance of downsizing were: that's the way it is; it's like a death, it happens to everyone, it is inevitable; this is an At Will State; it's purely business; no more lifelong jobs; people move from job to job to make more money faster, grow their careers, and make up for benefits no longer provided by companies; frequency of media reporting that makes it routine; companies must show a profit; and either some lose the job or all do.

Some individuals volunteered alternatives to downsizing on their own, while others considered them only on probing. Most had not thought about ways to downsize costs without separating people from the job. Suggested alternatives included: talk to individuals first to see who plans to leave anyway; hiring freeze; no raises for a while; make processes more efficient; cross-functional training for breadth, not just depth, so that employees can move to different jobs within the company; look for where the real costs are for reduction, usually in overhead and not in people; balance the workloads, preventing hoarding, so that more people will have jobs; look for ways other than downsizing; shelf new product development until the economy is better; and sometimes just gotta bite the bullet.

So, What Does All of This Have To Do with Violence?

Stanage (1974) defines violence as the dis-order of order. An individual or a group of individuals according to what he, she, or they consider to be important constructs the order to which he refers. Stanage envisages a continuum spanning between order and dis-order, or civility and barbarity. He holds that it is possible to identify gradations of violence by positioning commonly understood verbs in the English language along this continuum, according to their connotation. In developing the Theory of Violatives, Stanage selected a list of verbs from the Oxford English Dictionary (OED), and added the –ive ending transforming them into nouns, suggesting that certain phenomena have the qualities of or tendencies toward whatever the verb meant. Examples of violatives that he selected include: Abusives, Breakives, Woundives, Thwartives, Ceasives, Damagives, Stopives, Spoilives, Embarrassives, Interruptives, Perturbives, Harmives, Humiliatives, Forcives, Fearives, Perturbives, Maltreatives, and Defeatives (1974, p. 230). This is an incomplete list, and Stanage challenged his readers to develop the theory by situating other violative phenomena within it. I have elected to situate downsizing within the Theory of Violatives, expanding the vocabulary with words used by participants in this study.

Violence can be constructive or destructive. Constructive phenomena move the civil order closer to civility, or order; conversely, destructive phenomena toward barbarity or dis-order. Stanage (1981) posits that violative phenomena can be said to have directionality, depending on their outcomes. For example, if a phenomenon results in the absence of something that was expected to be present, it is a distrusive, e.g. downsizing takes away a job that one expected to have until retirement. If the phenomenon is an unwelcome intruder into someone's or some group's constructed order, it is an intrusive, e.g. one's expectations for the job may include getting it done no matter what, which may intrude upon one's personal activities. When a phenomenon is thrust upon a civil order such that advances, pace, and so on are occurring so rapidly that it is difficult or impossible to keep up with them, it is said to be an obtrusive, e.g. the downsizing decision was made and implemented so rapidly that employees did not have an opportunity to learn a new skill and thus were downsized. A phenomenon that is thrust upon the social order with the outcome of negating the past or present and starting anew, often engaging in similar activities, it may be said to be a retrusive, e.g. a mid-life woman who started a career "late", after raising her children, then was downsized, may find that she has to begin a career all over again, the vertical climb having been truncated. When phenomena are thrust into a social order so that they cause one to think or behave differently than how one perceives oneself, they are known as subtrusives, e.g. a middle manager struggles with terminating employment of one of his or her team members, but does so anyway, because it was mandated by a higher level boss and to challenge it would be risky. Stanage calls these the DIORS violatives, an acronym for the various directionalities.

Careful attention to the language and expressions used by the participants in this study and a deep understanding of each person's relevancy structure extend the vocabulary of violence as well as the Theory of Violatives (Stanage, 1969). As a result of this study, for example, it is possible to position the participants' experiences of downsizing along Stanage's continuum, using words and concepts they have selected. We can now say that for some people downsizing is a shun-ive, cut-ive, rip-ive, flunk-ive, whack-ive, devastate-ive, crush-ive, concern-ive, worry-ive, devalue-ive, disrespect-ive, and so on. Accordingly, it is possible to say that if one's experience of downsizing makes it a betray-ive or disappoint-ive, it could also be a distrusive; if a strain-ive, obtrusive; and if a cut-ive, intrusive.

Galtung (1969) uses different terminology, and defines violence as an unwelcome gap between potential and actual satisfaction of four basic human needs: survival, well-being, identity, and freedom. If one accepts that the realization of human needs constitutes order and civility, then peace and social justice could be used to name the same end of the continuum as Stanage's civility and order--likewise for the absence of these and the opposite end of the continuum, i.e. violence, social injustice, dis-order, and barbarity. If the violative phenomenon suggests a subject-verb-object construction, where the subject is readily identifiable, it constitutes personal or direct violence. If the subject is vague, the phenomenon constitutes structural violence. Sometimes participants referred to their boss or boss' boss as the person who selected them for downsizing, resulting from a personal or professional vendetta. Survivors called this a "political assassination". Other times, participants alluded to "they" or "the organization" when attributing accountability for their downsizing, perhaps referring to indirect or structural violence rather than personal or direct.

Participants recounted the history of a company that had been in existence for over a century and that managed to survive near bankruptcy in the 1980s. Engaged in a cyclical industry, organizational leaders responded to each downturn by downsizing in this way. Employees came to know that if more than three years elapsed without a downsizing, something was amiss. In spite of the human hardships wrought by the downsizings, they seemed to become, in this company, an ever-looming possibility whenever a downturn was imminent. Characteristic in part of isomorphism, i.e. mimicking, organizational leaders seemed to join major competitors in the industry in shedding

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employees. An internal bureaucratic and political culture of "compliance and regimentation" (Patrick) coupled with external competitive pressures made it possible for this downsizing to occur.

I suggest that a possible interpretation of the acceptability phenomenon is the cultural violence of which Galtung speaks, that makes the downsizing seem all right, or certainly not so bad (1990). Cultural institutions, such as Law (articles of incorporation, Employment at will), Ideology (capitalism, the supremacy of the shareholder), Religion (rooted in dualities, the relationship between wealth and chosenness), Formal Science (financial reports and benchmarking), Language (The corporation as active subject, headcount, they had to do it, business/personal), and the Media (commonplace through routine reporting) make personal and structural violence possible. These participants' stories of their downsizing experiences are consistent with Galtung's typology of violence, complete with its dimensions, and violations against potential realization of the four basic human needs.

Conclusions

Findings from this study point to the following conclusions: People experienced their downsizing differently based on individual perspective and context; When the downsizing was perceived as deliverance, it functioned to re-order order, i.e. a transition toward healing and restoration of health and well-being, because the job itself had been oppressive; When the downsizing was perceived as a "neutral" event, the participants were financially secure, viewed the job as a stepping stone in their careers and were planning to move on anyway, or perhaps felt powerless and had been conditioned culturally, philosophically, or experientially to accept their fate within the capitalist system; When the downsizing was experienced most severely, participants did not expect to be selected, did not think they deserved it, perceived breach of reciprocal implicit contract, perceived that this was an opportune thing the company did, that the downsizing was not justified economically, that their ideas were negated, that they had been shunned by the organizational culture and workplace community, that they were immediately "othered", and experienced a deep sense of loss; Most employees affected by the downsizing believed there was nothing they could do to alter the decision; Experiences of downsizing describe a gap between potential and actual realization of one or more basic human needs; Stories of the downsizing suggest corroboration of personal, structural and cultural violence to render it acceptable; and Language used to describe gradations of violence can be positioned along a continuum between violence and peace, dis-order and order, social injustice and social justice, barbarity and civility, according to the way in which the downsizing was perceived.

Implications, New Knowledge for the Field of HRD and Directions for Future Research

Implications of this study for the field of HRD might include: HRD professionals who prepare management scholars within academe could develop a curriculum that includes a critique of corporate practices and contemporary issues in order to understand their impact on other people; HRD professionals might consider developing and implementing a curriculum for innovation, so that new business ventures can be developed as others become obsolete; and HRD professionals could assist organizational leaders and employees to identify, design, and implement a curriculum for employability, so that employees are encouraged to keep skills up to date and be more mobile within the organization.

Findings from this study challenge the HRD practitioner to exit the silo of implementer of strategy, and to expand our sphere of influence as change agents to the larger society. If downsizing has the potential of violence for some employees, should we not be involved with policy studies, revision, creation, advocacy, and enactment?

This study invites us to regularly reflect on what it means to be an HRD professional. As we carry through each of our assignments within a fast-paced and demanding environment, we might pause to ask ourselves the following questions: Where exactly are we rushing? To what end? For whose benefit? Who is included? Who is excluded? And most importantly, is this what we ought to be doing? How can we influence decision makers within the organization, as well as society and our government, to protect those whom we call "human resources", co-workers, partners, clients, and friends? Given what this study has revealed, what are peaceful ways to interact with all stakeholders of the workplace, including employees? Are we committed to working for peace within the workplace, or are we selective about which peace, where, how, for whom, and to what degree?

If we have become HRD professionals because we perceive ourselves to be "people-persons", drawn to a helping profession, we must be vigilant about being utilized to further business ends at the expense of people ends. As people persons, we have the power to reach and communicate on an interpersonal level, a very effective characteristic for furthering workplace values, persuading, and fostering a sense of family, for example. We must ask ourselves, and ask workplace leaders, to what end? What will happen in a downturn? What will happen to these

values? When HRD professionals not only reflect upon but also guide the discussion to those kinds of questions, we become proactive in changing the course of strategy.

While this study raises the HRD practitioner's consciousness of the violative potential of downsizing, the following research agenda might be influential in abolishing it altogether:

- What is the impact of repeated downsizing on learning and knowledge management in the workplace?
- What is the importance of commitment and relationships within the workplace as demonstrated in bottom line results?
- What must be done in order to enact policy, insuring portability of benefits? and
- What are successful alternatives to downsizing without forced separations?

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Family, Culture and Community Work: A View From the Margins

Phyllis Cunningham
Regina Curry
Matthias Hawkins
Northern Illinois University

We critique the limited concept of work that is confined to the production of commodities. We accept the analyses that technical rationality has colonized our life world. Utilizing participatory research and study circles with our community co-learners, we analyzed life-affirming work in the Calumet Communities Empowerment Zone. Three types of life-affirming work were found: mother work, cultural work, and community work. AHRD personnel, it is concluded, need to critique corporations who are socially irresponsible and enlarge their definition of work.

Key Words: Life-affirming Work, African-American, Participatory Research

In 1999 we attended the Academy of Human Resource Development's (AHRD) annual meeting. We were impressed with the energy and commitment of industrial training personnel and university professors who run graduate programs that prepare and provide research to "learning organizations" and their human resource developers. We experienced highly articulated discourses on the technology, the meaning, and the spirituality of work engendered by this group. We also experienced an alienation from many of the assumptions, activities and goals that drove their knowledge production and applications.

In this era of the micro chip it would seem that all citizens could have more disposable time while doing less work. Contrary to this we note the following: 1) the economic differences between the rich and the poor are increasing, 2) the state and civil society are threatened by the market 3) mobile capital seeks out and exploits global sites with the least social and economic protection, and 4) materialism has displaced and contorted our value system. In addition, most work places are increasingly characterized by worker alienating practices such as contingency work, outsourcing, "just-in-timism", and perpetual downsizing (Brecher and Costello, 1994; Cunningham, 2000; DeOliveira and Tanden, 1994; Hart, 2002; Korten, 1995).

We have been doing participatory research (Hall, 1997) over the last five years on the far south side of Chicago in the Calumet Communities where work, as defined by AHRD, has left the neighborhoods, and taken with it, most of the "workers" within those industries. The former steel capital of the world, initiated in 1875, is located in Calumet. In 1974, this was a thriving community of 90,000. It now has a population of 43,000 residents, reflecting the national decline from 570,000 steelworkers' jobs in 1953, to 200,000 jobs in 1982. Currently, about 25% of steel produced in the U.S. comes from here (Center for Neighborhood Technology, 1998).

The Pullman Community, also part of this area, housed a company town built by George S. Pullman who not only manufactured luxury sleeping cars, but also held the monopoly of their national distribution through leasing them to railroad companies. He also employed and leased the services of porters and maids for these cars. The Pullman community was self contained on 250 acres with over 5,000 workers living in row houses with a church, hotel and park owned by Pullman situated around the factories and wheel works. In 1894, the "Pullman Strike," a bloody and violent strike between labor and the company occurred that resulted in the state using anti-trust legislation and federal troops for the first time against a union on strike. It was also the place where the first Black labor union, The Sleeping Car Porters, was started by A..Phillip Randolph. The Pullman Community gradually became a decaying neighborhood with an outmigration of whites replaced by African-Americans (Hughes,1998).

The far south side of Chicago housed much of the industrial production which supported Chicago. Today, the "brown fields" in South Chicago look surreal where the lead from Dutch Boy paint, and the slag from the steel mills, create super-fund clean up projects. It is in this community that we begin our analysis of work through the eyes of the residents. A team of over 20 graduate students and university faculty teamed with six community organizations to mobilize and develop leadership from the bottom up. The goal was to provide leadership in six areas as called for in the Empowerment Zone mission: economic revitalization, youth futures, environmental cleanup, cultural activity, health and human services, and affordable housing (Lopez, 1998). The strategy was to utilize participatory research, popular culture

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and study circles to effect this goal. Taped interviews with community leaders were made of each of the six community based organizations with whom we worked. Community residents identified problems, generated action and reflected on that action. We found that Calumet Communities' residents , regardless of formal employment status, work hard.

In this paper, we examine traditional definitions of the concept of "work, in order to reveal their definitional narrowness. In addition, the authors, and our co-learners in the Calumet Community, offer alternative definitions of work that are more comprehensive, inclusive and accurate.

Its All In The Definition

According to the Encarta Encyclopedia(1998), work is defined in the form of a verb, a noun, a transitive verb, an adjective, a phrasal verb, and as an idiom. The two major modes of usage, as a verb and as a noun, have twenty-seven and fifteen meanings respectively. Further, the verb category for the usage of the word "work" is divided into transitive (12) meanings and intransitive (15) meanings. Then there is the set of phrasal meanings (19) and the idiomatic meanings (7). In total, there are 68 ways to define work listed in this one reference . Clearly work is a key code word within our culture based on it's linguistic elaboration.

What is clear to us is that work driven by the bottom line of private profit is based on concepts such as commodity production, objectification, rationality that are embedded in productive processes. These concepts and processes have, in Habermasian terms,"colonized our life world" (Welton, 1997). Enveloped in a life view that our God has commissioned us to dominate the environment, we have indeed been stood on our head by our own ideology. For it is science that dominates and controls us while we triumphantly assume we are dominating the rest of creation.

What is the big deal in all this, you ask? For an answer we look at how this monopoly on defining work by business, industry and science may crush out the vitality of society, the informal terms of solidarity and exchange between members living within a common geography, a common government, and a set of common goals. For what is left out of these definitions of work is the work of women (mother work, other mother work, community mother work), cultural work and community work. The erosion of the informal culture by a narrow definition of work creates a default environment where rational definitions of work are imposed upon the vulnerable, often unemployed, marginalized members of our society. In other words, if one does not have a degree and/or a job, it is impossible to meet the conditions of a meaningful definition of work according to the society in which one lives and identifies. This ingrained attitude of contempt contributes to the erosion of the marginalized group's political identity. In this conceptual scheme the concept of unemployment quickly turns into unworthy (Bell, 1992).

"Work" with the greatest impact on and the most relevance to the goals of this democratic society should be that work with the greatest potential worth to its members. The importance of self-definition of words like work and worth is apparent when we realize that language is the frontline of the war against alienation, marginalization, and polarization—the enemies of effective, participatory democracy. This being said, we want to bring you definitions of work from the urban community perspective after we first examine some definitions of work that contrast with the views of the modern "human resource developers".

Alternative Views Of Work

E.P. Thompson (1967), the great English adult educator who spent his life thinking about work, the making of the working class, and the appropriate education for workers, noted that industrial capitalism *separated work and life*. This is the seminal concept that is basic to several authors thinking.

Hart (1994) picked up this theme recognizing that today it is only those who produce commodities for money that are officially counted as workers, she champions subsistence workers (those who produce life substances such as food) and mothers (who produce the workers) as doing creative and essential work. Though they are the workers who create and sustain life these are the very persons who are often excluded by the official definition of work. Rather their work is devalued and they are often dismissed as naive peasants or merely homemakers. Hart argues that both work and education should be for life. Further, Hart (2002) in an extensive study of African-American women in an urban setting found that mother work was vital to maintaining one=s family in the changing rules of welfare and work. As for the production of commodities, she notes that this activity is not production but simply transformation of materials, thus it should not be privileged over life producing activities. If anything, we should be privileging life affirming work.

Haymes (1996) picks up this analysis focusing on race; he notes that the issue within black urban communities is survival. The learning needed is how to survive scientific rationality, since the rationality of capitalism marginalizes and defines the community invidiously as "the other". Haymes, in a careful analysis of African-Americans and their "work" contribution to the physical and cultural growth of urban areas, recognizes that Eurocentric gentrification and economic redevelopment seeks to negate this work and further marginalize Blacks by displacement. For Haymes, the hope of the African-American is the "pedagogy of place". Haymes recognizes the importance of contextualizing work by invoking the meaning found in "place". But Haymes' inferred definition of work is not about leaving the community to find economic stability. He does not emphasize science, rationality, production quotas, and the "meaning" of work or spirituality within the factory as do those in HRD. In fact, he mounts a daunting critique of how African-American's culture as well as their very blackness has been pirated and commodified by capitalistic entrepreneurs. Accordingly, Haymes defines the work of urban blacks as taking back their culture, taking back the urban spaces that they have constructed and in which they have found meaning, to relearn their strengths and to revalidate their accomplishments. He notes that they have kept their communities viable under egregious conditions and must now resist the entrepreneurial cultural voyeurism which has the potential to destroy the very meaning they have constructed.

Interestingly enough, Jose Lopez, a Puerto Rican "independentista" on the near north side of Chicago, proclaims that same ideal (Community Hearings, 1998). Lopez, sees the "work" of the urban Puerto Rican community is to take back their "place" not only in Chicago but as a nation . His concept of cultural work is political. At both ends of Division Street in their Humboldt Park community fly two fifty ton Puerto Rican flags made of pipe. The pipe symbolizes the work place in which many Puerto Rican workers historically found employment in the steel mills as pipe makers. On each side of the street the lamp posts are etched with symbols of Puerto Rican history and culture. Between these symbolic gates on Division Street stand numerous Puerto Rican cultural entities: Puerto Rican restaurants, the Boriken Bakery and Café, La Casita de don Pedro Albiso Museum of Puerto Rican History and Culture (including a park with a statue of this leader for Puerto Rican independence and the casita, a small one-room wooden residence and garden typical of Puerto Rico), the Vida-SIDA health education center, the Isabel Rosado Galleria (art), La Municipal Market (fronted by a façade of the El Morro Castle located in Puerto Rico), the Margarita de Cayey Theater of the Oppressed and permanent tables to play checkers with chairs embedded in the sidewalk. Murals of Puerto Rican "political prisoners" and leaders are pictured in outdoor murals; the annual Puerto Rican People's Parade and Fiesta Boricua are celebrated here, and a Son de Barrio salsa band was organized to provide Puerto Rican music for the community. In the immediate area is the alternative school, Pedro Albiso Campos, which for over 25 years has provided both an alternative high school and adult education in a Puerto Rican context (Ramos-Zayas, 1998). What is the definition of work for these people on whose island Columbus landed? Did not this "discovery" signal the conquest of the new world for the market and the resource hungry industrial old world? Lopez's response to this Eurocentric interpretation is a call to Puerto Ricans to take back their "work places", both the "island" as well as the diasporic islands within the continental U.S. After all, Puerto Ricans labored to build this country at the same time their culture was being devalued.

To summarize, we reject a narrow definition of work that relies on technology and rationality as the wellspring that defines our activities. But we do not reject rationality. We agree with Hart that education and work is for life and cannot be measured only in economic terms. We agree with Haymes and Lopez that marginalized groups must first reorient themselves in their own cultural context. Further, that urban persons should reclaim their "place", revise inaccurate histories with their structured silences denying their work contributions, and legitimize their own knowledges.

A Closer Look from the Bottom Up: Life Affirming Work

In this section, we will discuss three major areas of human activity that we observed in the Calumet Communities and show how this unpaid work is both necessary and appropriate: mother work, culture work, and community work. We have made a conscious effort to avoid examples that lay outside the realm of legality ; we also reject the deficit discourse that is utilized by so many professionals in discussing the poor (McKnight, 1995).

Mother Work

Lowden Homes parent's challenge of mother work include safety issues as well as food , clothing and shelter. A great deal of energy is expended keeping their children safe in the midst of violence. To ensure safety for children to travel back and forth from school, they formed a parent patrol. The women formed a group of parents that would be

available during school time hours and alternated their services. Each member of the parent patrol wore bright orange vests as a symbol to let the children know they could come to them if they did not feel safe. We see this as an example of community mother work; mothers in Lowden Home look after all of Lowden Homes' children.

Another example of mother work that was apparent in our research was the activity that surrounded food. In most households the budgeted amount for food was inadequate. The parents had to seek out places within and outside the community to supplement their food budget. Supplying food for the family was a monumental task. The community grocery stores were not appropriate either in prices or quality of food. Churches established food pantries but one had to find them, note their schedules and then get there to pick up food. Many parents used the bartering system by exchanging some of their talents/skills to negotiate transportation. Bartering services in the urban setting becomes life sustaining work. Interdependent liaisons were developed to help one another over the tight spots.

Children have to be reared to understand the politics of their environment while being taught to be a good citizen. In the absence of competent legal counsel, potential interactions with police housing and welfare authorities demand significant time and energy. Young adults and children need information to develop appropriate and realistic views of the negative power that these persons hold over them-- interactions with authorities should often be avoided. This requires the development of informal policy, the elaboration of informal physical boundaries, and the sharing of consequences gleaned from past encounters. This need to protect their children from "public servants" is a social cost for the poor parent.

Supplementing income is another objective of mother work. A resident gets a job and this means someone else can earn some money by caring for her children after school. Some mothers buy snacks and pop at the wholesaler and sell it out of their homes for profit. This trading of services or goods become a way to augment the family budget. In addition, to the bartering of services, residents charge affordable fees for hair braiding, sewing and catering.

Safety, food, and citizenship work takes a lot of energy from the "normal" running of a household. In addition to the aforementioned tasks, the parents in Lowden Homes spend inordinate amounts of time at health facilities. Based on the research conducted at both Lowden Homes on the south side and the Henry Horner Homes on the west side, these communities experienced the highest rates of children with asthma, far above national norms. There are different schools of thought as to why these numbers are so high, but the bottom line is that these parents are frequent visitors at health facilities where the waiting time is often proportionately long. One area of human activity that consumes significant amounts of non-economic resources (time and energy) is the defense against chemical/environmental contamination and its subsequent non-diagnosis and misdiagnosis. Impact of these two community threats were immediately apparent amongst the very young and very old ,the most vulnerable people of poor communities. In Lowden Homes, residents are exposed to the emissions of over 320,000 automobiles daily (Trkla, 1993); auto emissions that contain Nitrous Oxide, Carbon Monoxide, Benzene, Torilene, Xylene, Dioxins and Furan which can be toxic for humans(Ohio EPA, 1999). This contamination requires families to dedicate critical resources to the full time monitoring and medicating of their health. This is work for mothers caring for their children.

Culture Work

Lyn Hughes, looking for real estate investment, purchased three of the row houses in North Pullman. In the next few years she turned herself into a cultural worker within the community. She educated herself in how to organize a non-profit organization so that she could develop the A. Phillip Randolph Museum in one of the houses. This meant learning how to write grants, develop a board, keep records, engage a developer, and to run the museum. There is no regular salary for this work so recruiting community volunteers to assist her in this unpaid work was necessary. From this modest beginning of honoring the man who started the first black labor union she has:

- contracted with public schools to bring children to the museum to educate them on African-American social contributions;
- obtained a million dollar grant to turn the abandoned fire house into a cultural center complex ;
- obtained national, state, and city designation for historic landmark status;
- organized and implemented a Pullman Porter travelling exhibit for the Amtrak railroad;
- consulted with Showtime on their cable TV production: "Ten Thousand African Americans called George.";
- videotaped oral histories of elderly Pullman Porters aged 78 to 96 years;
- collaborated with the cultural workers in "Bronzeville", "47th Street Blues group" and DuSable African American museum to tell the story of the Great Migration and African American's cultural work to make a "place" in

Chicago.

- conducted an annual jazz festival at the museum;
- contracted with Amerail to hire 100 community young adults trained by the community college;

The vision of the Pullman community is to economically revitalize their neighborhoods through cultural tourism. Such activity provides jobs for docents, encourages development of small shops and bring economic activity into the community. At the same time a cultural center chronicles and celebrate Black Culture, provides training for jobs in the arts, technical services and cultural production.

Another organization, the Soweto Center, concentrated on educating children and youth in cultural activities. This group established a pen pal program between their children and South African children in Soweto; created art and dance sessions that were held weekly ; implemented neighborhood beautification projects including planting flowers; behind one set of flowers a wall of respect was made with a figure for each Chicago child who had been killed by gunfire; once a month the community gathered to honor these children. Every year the Soweto Center celebrated Kwanza in the park, wherein hundreds of community members gathered to celebrate Africana culture. The Soweto group dreamed of getting a building where youth could become entrepreneurs by selling products or services they had developed. These young adults were taken to the community college to obtain skills needed to operate a small business. Moti' Watson, the cultural worker with the vision received no pay for the work she did; she and her husband put their own resources into buying a building and running the program.

The Kids of the Future from Lowden Homes participated annually in the Bud Billiken parade. This unique Chicago event celebrates blackness and African heritage. The parents worked to earn money to buy uniforms for the children; they also drilled the children to not only march but perform together. After the parade, all participants returned to Lowden Homes for a barbeque. The money to buy uniforms and to prepare the meal was obtained by volunteers who worked hard to make the children proud of their culture.

In South Chicago, the Mexican Community Center organized "block clubs" which then sponsored various cultural events. The culminating cultural event took place on Cinco de Mayo when the streets were barricaded after the parade to allow various cultural and recreational activities. Again, the work was done by volunteers and community participants.

In our cultural work we brought African and Mexican Americans together for building leadership capacity through sharing experiences. In meetings where cultural performances, such as dances or popular theater were provided, we were surprised that some participants commented that they had not seen performances from other cultures. This indicates the degree to which urban cultural groups are separated and the work needed to bring them into contact. Diversity became work to segregated neighborhoods. Cultural workers seek to break down those boundaries.

Community Work

While formal social service agencies are indeed taking care of the individual case, in poor communities, we learned that much work was done with little if any material reward. For instance, in Lowden Homes, by virtue of a participatory community survey administered by residents, an acute need was identified for after school learning opportunities.

These same residents organized and conducted subsequent meetings, began to keep minutes, and, eventually came to the conclusion that they had to form an organization that would be able to administer the after school program. So, in partnership with the research team, residents went about the process of learning which type of organization was needed: a 501(c)3. After months of meeting to draft by-laws, vote on them, fill out the state and federal applications, several visits to the Internal Revenue Service, and two-hundred dollars later, L.I.N.K.-Kids of the Future was formed.

It is important to note here that the research team had as one of its objectives to ensure that the decision-making power remained with the residents and that new capacities that could be maintained were left behind once the action research project ended. Therefore, the community had to implement and administer the after school program. The next step was to fund the program.

This work began with a group writing session that produced the C.A.T.E.R.(Computer Assisted Test & Examination Review) after school program. We learned that the local government had funds that were made available by the federal granting program named the Community Development Block Grant (CDBG). We submitted a proposal to the local government and the program was approved for over $90,000.

Now, residents hired themselves and other community members to assist with implementing the program in the local community center. Soon, it became apparent that there was a need for the development of an independent site. To this point, they had worked with the local housing authority to reserve space in the community center. This arrangement

deteriorated when the local advisory council, a resident group regulated by the housing authority, and its personnel began to feud with the board of directors for the newly formed organization. Residents and community board members met with the parent patrol group to determine that several vacant housing units were being commandeered to use and distribute illegal drugs. They decided to convert these same units into a full blown computer lab and alternative community center. There were then meetings with the housing authority to get approval, develop blueprints, conduct walk-throughs, and transfer the property to the L.I.N.K. organization.

There was also the issue of the next year's funding. Again, residents researched opportunities, wrote grants, and submitted them to various agencies. This time, the State of Illinois, funded both the development of a new site and the next year's operation, which totalled over $180,000.

Shortly thereafter, there was a small grant written by two residents and a university worker and submitted for a computer literacy program that would teach residents how to use a computer for its basic applications. This grant was submitted to the Laubach Literacy organization. This grant was funded and the program was administered in the homes of residents pending the development of a new site. Residents learned together how to write resumes's, put out a monthly newsletter and write poetry.

Overall, a minimal amount of grant funds were provided initially to residents on a stipend basis. However, for the most part, the residents were required to donate their time and energy. Yet, because the need for these programs and spaces was acute, these residents did the work anyway. Crime was reduced, grades raised, matriculation rates increased, and, moreover, the intensity of some needs were relieved. However, not all community work had such positive results.

In the South Chicago community area, a small storefront, turned into an educational center, was organized by members of the Catholic church. Arnold Morales worked there as a volunteer. A graphic designer by day, he encouraged the youth to get educated, and then return, buy houses and build their community. He led the community in taking absentee landlords whose buildings harbored drug activity to court. So successful was this citizen group in closing down crack houses that a "hit" was put out on Morales. He was shot dead by a young gang member as he left the community center one night. Effective community work can have costs.

Conclusions

Poor people, "unemployed" people work. Their goal is mostly survival in a hostile environment. Accordingly, the way citizens work often demonstrated reciprocity and creativity. Work that sustains children, other adults in the community, and their culture is a priority. Hart (2002) discusses how we privilege the work being done for commodities and devalue the work done for life affirming events. It is our view that the work that goes on in Lowden Homes, Pullman and South Chicago though it does not provide economic value, is human capital rich in life affirming activity. The mother work that is required to raise a child from birth to college in the inner city is a valuable social contribution. We found that Lowden Homes' wealth was in its people and the work they do daily in service to one another.

In a more material analysis, economic activity can be calculated. Using the frequency of our meetings in Lowden Homes Computer Learning Center project alone, and the average duration of each of these meetings, we estimate that there were over 2,000 people hours donated by economically disadvantaged residents. If these hours were compensated at $10/hour, we see that the people doing this work could have earned, conservatively, $20,000 for only the time spent in meetings. If we use the formula two hours of outside work is needed per hour of community/board work, the number of hours triples to about 6,000. In total, there was work done in Lowden Homes on one project that could be valued at approximately $60,000.

What are the values of our society? Following 9/11 we note that the polarity of our value system was exposed. For our political leaders, "shop till you drop" was the admonition; clearly the assumption was a strong society is based primarily on its material economy. However, for many if not most citizens the 9/11 tragedy created new community heroes, new social solidarity, and a desire to connect more with friends and family. For us the latter reaction is a response to do life affirming work and to place commodities and their production in a proper perspective.

The solution to our systemic dilemma is to change the system. This is political engagement (Newman, 1994). For those who identify as adult educators working within HRD, we must join that struggle. Corporations that are out of control must be critiqued; progressive corporations that are seeking ways to be socialy responsible should be encouraged (Davidmann, 1995). A strong civil society that fosters political debate is a responsibility of all citizens. We can learn from those who do life affirming work in the urban landscapes, many of whom are now marginalized from participation in the dominant society.

Co-learners whose work has made this paper possible are Lyn Hughes, Historic North Pullman; Deborah Hardin, Willie Cole, and Marilyn Tyler, Lowden Homes; Hank Martinez, Mexican Community Committee; Antonio Lopez, Olive Harvey College; and Moti Watson, Soweto Center.

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Game Theory Methodology in HRD

Thomas J. Chermack
Richard A. Swanson
University of Minnesota

Two of the overriding issues facing the human resource development profession include the complexity of (1) integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles. Based on the literature and logical connections, game theory methodology was determined to have potential in helping the HRD profession addressing these complex issues.

Key Words: Game Theory, HRD Theory, Strategic HRD

There has been great concern that the HRD profession must become more strategic in its efforts (Gilley & Maycunich, 1998; Walton, 1999). Some have even proposed specific strategic roles of HRD (Torraco & Swanson, 1995). Furthermore, there is general consensus among scholars that the discipline of Human Resource Development (HRD) is grounded in the recognition and integration of multiple theories. Psychological, economic, and system theories are generally viewed as essential, if not core (Holton, 2001; Ruona, 2001; Swanson, 2001; Torraco, 2001).

Thus, two of the overriding issues facing the HRD profession include the complexity of (1) integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles.

On a completely separate path, a growing number of people are recognizing the importance of game theory (Brandenburger & Nalebuff, 1996; Fundenburg & Levine, 1999). Game theory tracks how outcomes of interactions between players are affected by the rules of the game, the tactics employed, and by the players' beliefs about each other (Gibbons, 1992). Game theory sets up the interrelationships in an organization as a simple exchange, a choice. Each player will make his or her move and expect certain consequences and reactions. Game theory is also founded on economic principles (Gibbons, 1992) and has been extensively tested (Fudneberg & Levine, 1999; Levine & Pesendorfer, 2001; Wright, 2000). Brandenburger & Nalebuff (1996) simplify some of the more complex concepts and equations found in game theory and apply them to business strategy. The application of game theory to the social sciences is only beginning and this paper intends to explore the application, usefulness and relevance of game theory to HRD.

Purpose of the Paper

The purpose of this paper is to explore the utility of *game theory* in helping the HRD profession address the complexity (1) of integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles.

Research Questions and Methodology

This paper first focuses on rational for the inquiry, provides an overview of *game theory* (what it is, how it works, and general principals), and discusses the potential role of *game theory methodology* in addressing the two identified critical HRD issues. These issues, in question form, read as follow:

- Can *game theory methodology* provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding?
- Can *game theory methodology* provide assistance to the HRD profession in fulfilling its strategic roles?

In that this is a preliminary investigation, the methodology used in answering these questions was a literature review along with an analysis and synthesis from the perspective of the two research questions.

Theoretical Framework and Rationale for the Inquiry

HRD has seen increasing interest in the development and application of theory (Swanson, 1996, 1998). In January 2002 the profession saw the first issue of the new HRD theory journal, *Human Resource Development Review*. It is being led by Elwood F. Holton (Editor) and Richard J. Torraco (Associate editor). The call for theory development in the HRD profession justifies expansive theory discussions and focused theory building research. Since 1996,

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Swanson has advocated that the discipline of HRD is based on three core theories -- psychological, system, and economic theories. Metaphorically, he portrayed this as a 3-legged stool with each theory domain having one of the legs. Furthermore, the proposition is made that when all three legs are called upon and are integrated, they provide the uniqueness of the profession as well as the stability and flexibility required to be effective.

Almost everyone in HRD acknowledges the important of psychological theory to the profession. To a lesser extent there are advocates of system theory, and to an even lesser extent there is support for economic theory. As important as psychological theory is to HRD, it by itself is inadequate (Holton, 2001). Disproportionate attention to the psychological leg may limit theory growth and the strategic impact of HRD.

For example, Robert Gagne (1964) addressed the psychology of learning community in his classic keynote paper to the American Psychological Association. His paper on learning principles continues to provide a blunt challenge to those who *only* study learning in terms of what happens inside a person. His thesis, informed by research and experience, is that we should study *what* is to be learned instead of dwelling on psychological principles conceptualised apart from the learning task. Clearly, Gagne was more interested in the *system* requirements that the traditional *psychological* requirements of learning (1964).

Despite the warning for Gagne, and from even earlier works (see Dooley, 1945), the HRD profession continues its disproportionate dependence on psychological theory and its derivative-- learning theory. More specifically, the discipline of Adult Education almost exclusively focuses on the internal process of the learner and not on the external context and system demands. This void is a fundamental reason why Adult Education theory in itself is woefully inadequate in responding to the scope of problems facing the HRD profession. Even when adult educators reach toward the organizational context, they remain bounded by the individual learning process. One such example from adult education is the concept of transformative learning that many HRD professionals are familiar with. While Merizow and his associates (2000) seem to pose many of the right entry questions related to change and transformation, they offer very little in terms of theory or applied tools for rigorously studying the substance and demands of the *context* or the *basis of the learning problem.* As a part of Mezirow's (2000) edited work, Yorks and Marsick (2000) write about organizational learning and transformation. They extend themselves to groups of learners and never substantively address the substance of the group's sponsoring organization and its context. They do allude to the idea that "the goal of organizational transformation is allowing the organization to more effectively realise its performance goals." (Yorks & Marsick, p. 254). While performance goals are referred to, Yorks and Marsick offer nothing more on the effective realisation of performance goals in terms of on-going analysis or verification of outcomes. The authors simply drop back into individual learning constructs -- *psychological* theory -- and ignore the promise of addressing *system* and *economic* theories in any substantial manner.

Game theory has developed out of economics as a means of addressing decision-making within complex and strategic real-life situations. It has always had an eye toward theory to practice. As game theory has matured it has clearly gone beyond its economic roots and has expanded to embrace *system* and *psychological* realms. For these reasons, it seems worthy to explore game theory and its potential in helping the profession embrace and integrate psychological, system, and economic theories and for assessing the utility of game theory in advancing HRD strategic roles.

Overview of Game Theory: What It Is, How it Works, and General Principals

Developing out of economic theory and British submarine warfare, game theory was first applied to the political sciences as a potential means for ensuring political integrity (Brandenburg & Nalebuff, 1996; Fundenberg & Levine, 1999.). Game theorists thought that if they could instil in leaders a deep understanding that millions of lives are riding on the decisions and political manoeuvring of the few, powerful leaders would act in a way more beneficial to the community at large (Gibbons, 1992). When this attempt was regarded as unsuccessful, game theorists began to concentrate their efforts in parlor games, predictability, and mathematics.

Game theory is a theory of social situations (Fundenberg & Levine, 1999), or "the study of multiperson decision problems" (Gibbons, 1992. p. xi). Levine (2000) defines game theory as "the mathematical study of human interactions described by rules of play and alternative choices" (p. 1). McCain, (2000) states: "Game theory is a distinct and interdisciplinary approach to the study of human behavior" (p. 2).

Economic theory has four main branches, namely, decision theory, general equilibrium theory, mechanism design theory, and game theory (Levine, 2000). There are two main branches of game theory: cooperative and non-cooperative. Non-cooperative game theory (also referred to as *zero-sum*) deals with how individuals interact with one another in an effort to achieve their own individual goals. In these non-cooperative games, one player wins and the other loses. These are usually simple games in which the winner takes everything. Examples include tennis, chess, and boxing. In cooperative, or *non-zero sum* games, one player's gain need not be a loss for the other. Non-

zero sum games, when played correctly produce enough wins for everybody. Non-zero sum games attempt to model the real world. Each player's interaction with another player will have effects that may seem unrelated yet are interrelated and far-reaching.

Choices and alternatives in game theory are most commonly displayed in a table (see figure 1). From this profile, it is easy to determine what each player's payoff is under each alternative choice. Games have been a scientific metaphor since the work of von Neumaan & Morgenstern (1947), which has been credited as the first important and unified work in game theory.

Figure 1. The basic map of the alternatives and payoffs in a game.

Player 1	Player 2		
		Option X	*Option Y*
	Option X	(Payoff for Player 1, Payoff for Player 2)	(Payoff for Player 1, Payoff for Player 2)
	Option Y	(Payoff for Player 1, Payoff for Player 2)	(Payoff for Player 1, Payoff for Player 2)

The Prisoner's Dilemma

Perhaps the most notable example of a non-zero sum game is the famous Prisoner's Dilemma (Tucker, 1950). In the dilemma, you and a partner in crime are interrogated separately. The evidence to convict both of you of the crime is lacking, but there is enough evidence for a lesser charge, for example, a one-year prison sentence for each. The state wants the more serious charge and pressures both of you to confess and implicate the other. A deal is offered in which if you confess, but your partner does not, you will go free, and your partner will be sentenced to ten years. The same deal is offered to your partner. If both of you confess, the term is three years each, and if neither confesses, it is one year each. The options are charted in figure 2.

Figure 2. The prisoner's dilemma as an example of game theory applied.

Your Strategy	Partner's Strategy		
		Confess	*Stay Quiet*
	Confess	You: 3 years Partner: 3 years	You: 0 years Partner: 10 years
	Stay Quiet	You: 10 years Partner: 0 years	You: 1 year Partner: 1 year

Wright (2000) points out that there are two quirks in the Prisoner's Dilemma that impede intuitive comprehension. First, in the Prisoner's Dilemma, the object of the game is to achieve the *lowest* score possible, since the score represents each player's prison sentence. This can most easily be thought of as competing for the lowest payoff, which seems counterintuitive. Second, to "cheat" is to tell the truth. These are two characteristics of the Prisoner's Dilemma that run contrary to the majority of game theory games (Wright, 2000) and are unique to this popular example.

Wright (2000) reveals two key features of non-zero sum games such as the Prisoner's Dilemma. First, communication carries critical importance. If the prisoners cannot communicate, and behave logically, both will suffer a prison sentence. When considering the possible options as a player of the Prisoner's Dilemma, the importance of communication becomes clear. Suppose my partner cheats on me by confessing. If I stay quiet, I get a ten year sentence. If I cheat too, I get a three-year sentence. If my partner stays quiet, I am still better off cheating as I will go free, rather than the one-year sentence I will receive if I stay quiet too. The logic becomes irresistible: never cooperate, always "cheat" because the outcome will be your best option every time.

If both players follow this logic, by both always cheating, both will get three years in jail. If both players stay quiet, each receives one year in jail. The win-win outcome is, obviously, for both players to stay quiet. However, it makes no sense for either to stay quiet unless both have been assured by the other that he or she will stay quiet too. This is why communication is critical.

The second key feature of the Prisoner's Dilemma is trust (Wright, 2000). Players must be able to trust the assurances of other players. If a player suspects that another player will cheat even after giving assurance, then cheating will still produce a more beneficial outcome. This is not irrational as there is substantial temptation for any player to cheat.

Rationality

Neoclassical economics is based on the assumption that human beings are absolutely rational in their economic choices (Becker, 1993). For use in general economic models, rationality has been a tool to limit the range of possibility and make more accurate predictions (Gibbons, 1992). Thus, neoclassical economic theory is not applicable in situations that involve restricted competition, or options that are not presented because they are irrational (McCain, 2000). In neoclassical economic theory, to choose rationally is to maximize one's rewards. The importance of rationality is in its assumption that a given players actions are predictable, or that a player will always choose the outcome that will yield the greatest benefit. "The largest problem for neoclassical economics has been in situations that require decisions outside the money economy, because rationality does not hold" (McCain, 2000, p. 17).

What has made an impact on social science with regard to the Prisoner's Dilemma is the outcome that if both players act rationally, or do what is in their best self-interest, they will both be made worse off in terms of their own purposes. An arms race is another example of such a phenomenon: each country acting in its own self interest will, overall, make the world worse off (McCain, 2000).

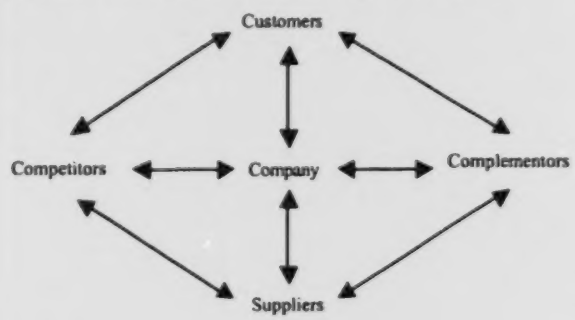
Applying Game Theory Concepts to Business

Brandenburger & Nalebuff (1996) apply the concepts of game theory to business strategy. The authors also describe the elements of game theory in business strategy by using the acronym PARTS, standing for players, added value, rules, tactics and scope, respectively.

Players

Brandenburger & Nalebuff (1996) pose the question: "if business is a game, who are the players and what are their roles?" (p. 16). To answer, they begin by offering the Value Net (see figure 3). Brandenburger & Nalebuff (1996) submit that the Value Net is a helpful tool when considering a given business situation as a game. "This map, the Value Net, represents all the players and the interdependencies among them" (Brandenburger & Nalebuff, 1996, p. 17). The vertical dimension of the value net denotes the flow of goods while the horizontal dimension identifies the competitors and complementors. These terms warrant definition and differentiation. "A player is your complementor if customers value your product more when they have the other player's product than when they have your product alone" (Brandenburger & Nalebuff, 1996, p. 18). Competitors are the opposite. "A player is your competitor if customers value your product less when they have the other player's product than when they have your product alone" (Brandenbuger & Nalebuff, 1996, p. 18).

Figure 3. The Value Net provides a model for examining the players in a game.



Added Value

The key to understanding the power distribution in a game is in the concept of added value. Brandenburger & Nalebuff define added value as "the size of the pie when you are in the game minus the size of the pie when you are out of the game" (1996, p. 45). Simply put, your added value is what you bring to the game, or what the others would miss by not inviting you into the game. A warning here: do not expect to get more than your own added

value out of a game situation because once you ask for more than your added value, you are asking the others involved in the game to divide less than they would have if you had never been invited (Levine, 2000).

An excellent example of added value is seen in movie stars. Sylvester Stallone rose to stardom with Rocky, and was paid a minimal salary for his efforts in the film. However, when he signed for Rocky II, he had enormous added value, and thus, could demand and enormous salary.

Rules

An examination of the rules of the game will help to establish the limits to the negotiations. While some business deals are free form and without limits, others are strictly bounded. For example, most retail stores offer the same price to all customers. This is a rule. In some situations, cultures, or business situations, customers are not allowed to negotiate individually on the price of given goods. Other situations, cultures, or business situations rely on individual bartering.

Game theory also posits that for every action there is a reaction. Brandenburger & Nalebuff (1996) point out that this expected reaction is similar to Newton's third law in physics, however there is a critical difference: In physics, the reaction is expected to be equal and opposite. This is not the case with reactions in game theory – they are not expected to be equal or opposite – they are not limited. According to Brandeburger & Nalebuff, "You look forward into the game and then reason backward to figure out which initial move will lead you where you want to end up" (1996, p. 52).

Tactics

The job of managing and shaping competitors' perceptions is an essential part of business strategy. Buyers and sellers negotiate – sellers portray what they have to offer as valuable, while buyers might not agree on the same level. Negotiations involve, and in fact, rely on perceptions (McCain, 2001). Brandenburger & Nalebuff describe tactics as "actions that players take to shape the perceptions of other players" (1996, p. 199). There are three common tactics described here (1) lifting the fog (2) preserving the fog and (3) creating complexity (Brandenbuger & Nalebuff, 1996).

A full display of capability, or lifting the fog means that a player will demonstrate full confidence in a given product, service or choice. This is commonly referred to as putting one's money where one's mouth is. "The tactic is to put on a display that impostors can't, or wouldn't dare to, match" (Brandenburger & Nalebuff, 1996, p. 203). This is a common tactic in companies that are certain of their competitiveness (Levine, 2000). For example, Microsoft has often used this tactic, as its leaders know that few companies can offer the same or similar products with any degree of success.

Preserving the fog is a risky tactic, but can be an extremely effective one. When an organization or department turns down a project or business deal, those responsible have good reason to hope the deal is never seen again. If a competitor tries it out and fails, the first company is vindicated, as the project was doomed to failure (Gibbons, 1992). However, if someone picks up the project and turns it into a success, the judgement of decision makers in the first company is seriously questioned. "If you follow the herd, you'll succeed or fail along with the herd. The fog is preserved. You'll never stand out if you're right, but you're also less likely to get eaten alive if you're wrong" (Brandenbuger & Nalebuff, 1996, p. 213). This tactic is one of joining the herd.

Creating complexity is a method of confusing an opponent. "Unpredictability is sometimes the key to effectiveness" (Brandenburger & Nalebuff, 1996, p. 222). This tactic is simply used to cause confusion to other players who think they know how you function as an individual, group, or organization. For example, complex pricing schemes, product bundling, or even long distance phone bills produce confusion that obscures the real price. All of these are methods of covering or obscuring the real price of a given product.

Ultimately, the goal of any tactic is to shape people's perceptions of the game. The game is changed when perceptions of the game are changed. The key to perceptions is noting that people observe there to be several different games occurring at once, when in effect, these are all parts of the same game.

Scope

In principle, a game does not have boundaries, but a game without boundaries is also far too complex to analyze. For this reason, people draw and re-draw boundaries almost constantly. "People often talk about a national economy, or an industry, as if it were the whole picture. Of course, everyone knows that's a fiction. In reality, the

world's economies are highly interdependent – indeed, increasingly so" (Gibbons, 1992, p. 57). Scope refers to the boundaries that are drawn in order to make sense of a given situation.

Analyzing individual games in isolation is threatening, thus "Academic game theory models are sensitive to assumptions about who knows what and when and to the structure of the game itself, but these assumptions, in isolation, are not of much use in the real world" (Bushko & Raynor, 1997, p. 4). Game theory method relies heavily on the systems view of interconnectivity, and also provides the tools to analyze complex games or situations without loosing this overall context.

Results and Findings: Theory Integration Question and Discussion

The theory integration question of this inquiry is as follows: *Can game theory methodology provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding?*

Swanson (2001) has put for the following definition: "Human resource development (HRD) is a process of developing and unleashing human expertise through organization development (OD) and personnel training an development (T&D) for the purpose of improving performance" (p. 90). Furthermore, he provides a model of the HRD process within organization and larger environment. Within this purposeful context, Swanson's advocates three theory legs for the discipline of HRD that are visualized as a 3-leeged stool that stands on a rug of ethics. He goes on to advocate that "the whole theory of HRD is proposed to be the integration of psychological, economic, and system theories within an ethical frame" (Swanson, p. 93). He goes on to propose an overarching theory integration proposition for HRD:

> *HRD must integrate its core psychological, economic, and system theories into a holistic theory and model for practice.* (Swanson, 2001, p. 94)

The challenge of this proposition is large. First, most HRD professionals function from principles and tools of practice with weak and inconsistent reference to any research and theory. Thus, just getting HRD professionals to clearly state a theory that explains their work is enormous. Even so, most simultaneously espouse that HRD is grounded in multiple theories while saying nothing at all about the integration of multiple theories in defining the HRD discipline and its practices.

Game theory methodology appears to provide potential for integrating and applying economic, system, and psychological theories in HRD practice. First, it fully acknowledges the three theory domains and second, its focus is on decision-making within the complex real-life situations. Game theory methodology can be utilized in analysing economic, systems, and psychological situations, thus it appears that game theory methodology might prove promising in integrating these theories of HRD. Game theory has primarily been used in decision situations and has not been used in the manner advocated by the authors. Therefore, the authors acknowledge the preliminary and exploratory nature of this proposition.

Applying game theory methodology to HRD would logically need to be confined to boundaries established by the HRD definition and purpose. Once confined to HRD, it is useful to highlight the fact that game theory methodology is best suited for addressing strategic issues and ill-defined problems. Not all problems facing HRD professional are strategic or ill-defined. Some projects contain both. For example, a major hotel chain engaged a deep analysis related to the strategic and ill-defined problem of customer satisfaction and its relationship to business success. The complex sets of system, economic, and psychological information from this analysis could be holistically thought through using game theory methodology. Once a business strategy was determined, game theory methodology would be of less value to subsequent decisions. For example, if training materials were to be designed to implement the new customer service strategy, game theory methodology would not be very useful to making training design decisions compared to the available training design methodologies.

It is our position that game theory can provide assistance to the HRD profession in integrating multiple theories for disciplinary understanding. Furthermore, game theory methodology is best be applied to the work of HRD assuming its strategic roles. A series of case studies applying game theory methodology in actual organizations would be useful in testing the theory integration proposition.

Results and Findings: Strategic Role Fulfilment Question and Discussion

The question of the added value of game theory methodology to HRD is as follows: *Can game theory methodology provide assistance to the profession in fulfilling the HRD strategic roles?*

Swanson (2001) asserts that HRD is of strategic value if (1) it is performance-based (2) demonstrates strategic capability and (3) responds to the emergent nature of strategy. Our position is that game theory methodology can contribute to HRD and its fulfilment of these three strategic roles.

Performance-Based HRD

HRD interventions serve a broad range of interests. While HRD can serve the needs of individuals and groups within organizations, HRD that is strategic contributes to business goals and organization performance (Swanson, 1994). "Performance-based HRD must be based on a clear definition of the performance problem through accurate identification of actual and desired performance requirements at the organization, process, and individual levels (Swanson, 2001, p. 347).

Game theory methodology *focuses* on outcomes; thus, HRD practitioners using the methods advocated in game theory must consider the strategies and payoffs for several alternative situations before focusing in on one particular strategy. Game theory methodology aims first at understanding the game that is being played. Tools such as The Value Net (Brandenburger & Nalebuff, 1996) are useful in defining the players, the boundaries, and the stakes.

Game theory can also assist in the clear definition of performance problems. For example HRD professionals might use game theory tools in assessing the key relationships that are jeopardized by a quality issue in a specific department. These tools can also function as internal diagnostics at the interfaces between divisions (Rummler & Brache, 1995).

Demonstrating Strategic Capability

HRD provides education and learning about the nature of systems and strategy, and in many cases, HRD professionals contribute directly to the planning process (Toracco & Swanson, 1995). Education is critical in providing the systems perspective for those who set the strategic direction, while direct participation in the strategy process by HRD professionals ensures the recognition and consideration of competitive advantages achieved through the development of human expertise.

Game theory methodology is highly systemic in nature and contributes to the consideration of options prior to the decision-making process (Gibbons, 1992). Brandenburger & Nalebuff (1996) point out the need to define the scope of a game, while keeping in mind that no game occurs in isolation. That is, the effects and implications of one game will likely affect another game that is often perceived as separate. The HRD professional can use game theory tools to keep the broad perspective and examine the implications of several possible outcomes in a strategic situation.

Game theory methodology can also be used proactively to suggest possible future outcomes of given strategic options. A thorough analysis of player actions and responses can help HRD professionals anticipate possible future options and payoffs. While the intent of game theory methodology is to evaluate decision implications, its potential to predict options cannot be ignored.

Emergent Nature of Strategy

"HRD cannot add value to the shaping of strategy if the strategy is already fully formulated" (Torraco & Swanson, 1995, p. 19). For this reason, HRD professionals must find ways to embrace the emergent nature of strategy. For the HRD professional this means the constant preparation and development of employee expertise to take full advantage of business opportunities that emerge with little or no indication. Simply viewing strategy as an evolving phenomenon indicates the need for expertise at the individual, process, and organizational levels. "Academic game theory models are sensitive to assumptions about who knows what and when and to the structure of the game itself" (Bushko & Raynor, 1997, p. 4).

Game theory methodology provides the methods for assessing the interconnectedness of strategic options and situations. With useful means for evaluating the implications of strategic decisions, and their counter-decisions, game theory methodology supports the emergent nature of strategy and its wider implications. Simply charting decision options on the map presented in Figure 1, or by using the value net to asses a given situation might allow the user to see pieces of the whole situation that may have otherwise been overlooked.

Conclusions and Implications for Further Research

Based on the literature and logical connections, game theory methodology has potential in helping the HRD profession address the complexity (1) of integrating multiple theories for disciplinary understanding and in (2) fulfilling its strategic roles. It is proposed that series of HRD case studies focused on theory integration and strategy problems be conducted using game theory methodology to assess the utility and validity of the methodology.

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Scenario Planning: An Examination of Definitions, Dependent Variables, and Support for Development as an HRD tool.

Thomas J. Chermack
Susan A. Lynham
Texas A&M University

Scenario planning has been receiving increased attention as a tool for considering the future in the midst of a rapidly changing business environmentThis article will examine available definitions of scenario planning, analyze the espoused dependent variables of the process, set forth an integrative definition and support the further development of the process as a useful and relevant Human Resource Development (HRD) tool.

Key Words: Scenario Planning, Dependent Variables, Definitions

While the use of futuring is growing in its popularity, many of the futuring tools available to business leaders are lacking in clarity around precisely what they do and how they achieve their espoused ends (Fahey & Randall, 1998). With increasing uncertainty and an accelerating pace of change, business leaders will rely even more heavily on such tools. Many of the available futuring tools are without coherent descriptions or explicit purposes (Mintzberg, 1994) although descriptions and purposes can be helpful in explaining theories and approaches to given processes (Egan, 2001). Scenario planning is one such process. The examination of available definitions of scenario planning is important to any scholar or practitioner concerned with the development of the process (Fahey & Randall, 1998).

Research Questions

The purpose of this paper is to explore the espoused outcome variables of scenario planning and consider its significance as an HRD tool. This is an exploratory study designed to gather the available definitions of scenario planning, examine the espoused outcomes, set forth an integrative definition, and support the further development of scenario planning as an HRD tool. The following research questions serve as the basis of this inquiry:

1) What are the available definitions of scenario planning?
2) What are the outcome variables espoused in the available definitions?
3) What would be an integrative definition that captures the essences of scenario planning and its targeted outcomes?
4) What is the relevance and use of scenario planning for HRD practitioners and scholars?

Methodology

A literature review, analysis, and synthesis accomplished the purposes of this study. The predominantly available literature comes from the United States and Europe, which may limit the study. A keyword search of "scenario planning" conducted through several large search engines at a major university in the Untied States yielded several resources. The resulting resources were examined for their definitions and outcome variables.

History and Background of Scenario Planning

Scenario planning first emerged for application to businesses in a company set up for researching new forms of weapons technology in the RAND Corporation. Kahn (1967) of RAND Corporation pioneered a technique he titled "future – now" thinking. The intent of this approach was to combine detailed analyses with imagination and produce reports as though people might write them in the future. Kahn adopted the name "scenario" when Hollywood determined the term outdated, and switched to the label "screenplay". In the mid–1960's, Kahn founded

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the Hudson Institute which specialized in writing stories about the future to help people consider the "unthinkable". He gained most notoriety around the idea that the best way to prevent nuclear war was to examine the possible consequences of nuclear war and widely publish the results (Kahn& Wiener, 1967).

Around the same time, the Stanford Research Institute (SRI) began offering long-range planning for businesses that considered political, economic and research forces as primary drivers of business development. The work of organizations such as SRI began shifting toward planning for massive societal changes (Ringland, 1998). When military spending increased to support the Vietnam War, an interest began to grow in finding ways to look into the future and plan for changes in society. These changing views were largely a result of the societal shifts of the time.

The Hudson Institute also began to seek corporate sponsors, which exposed companies such as Shell, Corning, IBM and General Motors to this line of thinking. Kahn then published "The Year 2000" (Kahn & Weiner, 1967), "which clearly demonstrates how one man's thinking was driving a trend in corporate planning" (Ringland, 1998, p. 13). Ted Newland of Shell, one of the early corporate sponsors of scenario planning, encouraged Shell to start thinking about the future.

The SRI "futures group" was using a variety of methods to create scenarios for the United States Education system for the year 2000. Five scenarios were created and one entitled "Status Quo Extended" was selected as the official future. This scenario suggested that issues such as population growth, ecological destruction, and dissent would resolve themselves. The other scenarios were given little attention once the official future was selected. The official future reached the sponsors, the U.S. Office of Education, at a time when Richard Nixon's election as President was in full swing. The offered scenario was quickly deemed impossible because it was in no way compatible with the values that were advocated from the leader of the country (Ringland, 1998). SRI went on to do work for the Environmental Protection Agency with Willis Harmon, Peter Schwartz, Thomas Mandel and Richard Carlson constructing the scenarios.

Meanwhile, Professor Jay Forrester (1961) of the Massachusetts Institute of Technology was using similar concepts to describe supply and demand chains. The use of scenario concepts in his project were more to develop a model which would help people understand the nature of growth and stir up public debate. The results were published by Meadows in 1992 (Meadows et al, 1992).

Scenario planning at Shell was well on its way. Ted Newland and Pierre Wack, as the heads of corporate planning for Shell Oil, suggested in 1967 that thinking six years ahead was not allowing enough lead time to effectively consider future forces in their industry (Wack, 1985a). Shell began planning for the year 2000. When the Yom Kippur war broke out and oil prices plummeted, Shell was prepared. The ability to act quickly has been credited as the primary reason behind the company's lead in the oil industry (van der Hiejden, 1997).

Shell's success with the scenario planning process encouraged numerous other organizations to begin thinking about the future. Because the oil shock was so devastating to views of a stable future, by the late 1970's the majority of the Fortune 1000 corporations had adopted scenario planning in one form or another (Ringland, 1998).

The success of scenario use was short lived. Caused by the major recession and corporate staffing reductions of the 1980's, scenario use was on the decline. It is also speculated that planners over-simplified the use of scenarios, confusing the nature of story telling with forecasting (Ringland, 1998; Godet & Roubelat, 1996). According to Kleiner (1996), the time had come for managers to realize that they did not have the answers [the answers for what?]. Michael Porter led a "back to the basics" approach suggesting that corporations use external forces as a platform for planning (1985). In this time of evaluating how planning happens many consulting firms began developing scenario planning methodologies. Huss & Honton, (1987) describe three approaches of the time: 1) intuitive logics, introduced by Pierre Wack; 2) trend-impact analysis, the favorite of the Futures Group; and 3) cross-impact analysis, implemented by Battelle. Shell continued to have success with scenario planning through two more oil incidents in the 1980's and slowly, corporations cautiously began to re-integrate the application of scenarios in planning situations. Scenario planning has been adopted at a national level in some cases, and its methods have been successful in bringing diverse groups of people together (Kahane, 1992; Van der Merwe, 1994).

Results and Findings: Examining the Definitions

The process of scenario planning is young, and many variations have been developed. This variety of approaches can also be found in the available definitions and espoused dependent, or outcome variables of scenario planning. The articles and books yielded from a keyword search were examined for their definitions of scenario planning and the espoused dependent, or outcome variables of the process that were embedded or implied in the definitions. The results of this search are presented in Table 1. Sources that did not contain a definition of scenario planning have been left out. The following eighteen definitions are a product of this keyword search.

Table 1. *Scenario Planning Definitions and Dependent Variables*

Author	Date	Definition	Dependent Variables
Porter	1985	"An internally consistent view of what the future might turn out to be – not a forecast, but one possible future outcome" (Porter, 1985, p. 63).	*A view of one possible future outcome*
Schwartz	1991	"A tool for ordering one's perceptions about alternative future environments in which one's decisions might be played out" (Schwartz, 1991, p. 45).	*Ordered perceptions about alternative future decision-making environments*
Simpson	1992	"The process of constructing alternate futures of a business' external environment" (Simpson, 1992, p. 10).	*Constructed alternate futures*
Bloom & Menefee	1994	"A description of a possible or probable future" (Bloom & Menefee, 1994, p. 223).	*A described possible or probable future*
Collyns	1994	"An imaginative leap into the future" (Collyns, 1994, p. 275, in 5th discipline field book).	*An imagined future*
Thomas	1994	"Scenario planning is inherently a learning process that challenges the comfortable conventional wisdoms of the organization by focusing attention on how the future may be different from the present" (Thomas, 1994, p. 6)	*Challenged comfortable conventional wisdoms about the future*
Schoemaker	1995	"a disciplined methodology for imagining possible futures in which organizational decisions may be played out" Schoemaker, 1995, p. 25)	*Imagined possible decision-making futures*
Van der Heijden	1997	1) External scenarios are "internally consistent and challenging descriptions of possible futures" 2) An internal scenario is "a causal line of argument, linking an action option with a goal", or "one path through a person's cognitive map" (van der Heijden, 1997, p. 5)	*Descriptions of possible futures* *Expilicit cognitive maps*
De Gues	1997	"Tools for foresight-discussions and documents whose purpose is not a prediction or a plan, but a change in the mindset of the people who use them" (De Gues, 1997, p. 46)	*Changed mindsets*
Ringland	1998	"That part of strategic planning which relates to the tools and technologies for managing the uncertainties of the future" (Ringland, 1998, p. 83).	*Managed future uncertainties*
Bawden	1998	"Scenario planning is one of a number of foresighting techniques used in the strategic development of organizations, which exploit the remarkable capacity of humans to both imagine and to learn from what is imagined". (University of Western Australia, GBN)	*Human imagination and learning made explicit*
Fahey & Randall	1998	"Scenarios are descriptive narratives of plausible alternative projections of a specific part of the future" (Fahey & Randall, 1998, p. 6)	*Plausible alternative projections of a specific part of the future*
Alexander & Serfass	1998	"Scenario planning is an effective futuring tool that enables planners to examine what is likely and what is unlikely to happen, knowing well that unlikely elements in an organization are those that can determine its relative success" (Alexander & Serfass, 1998, p. 35)	*Examined future likelihoods and unlikelihoods*
Tucker	1999	"Creating stories of equally plausible futures and planning as though any one could move forward" (Tucker, 1999, p. 70).	*Stories of equally plausible futures that inform planning*
Kahane	1999	"A series of imaginative but plausible and well-focused stories of the future" (Kahane, 1999, p. 511 in 5th discipline field book).	*Plausible stories of the future*
Kloss	1999	"Scenarios are literally stories about the future that are plausible and based on analysis of the interaction of a number of environmental variables" (Kloss, 1999, p. 73)	*Infomed, plausible stories about the future*
Wilson	2000	"Scenarios are a management tool used to improve the quality of executive decision making and help executives make better, more resilient strategic decisions" (Wilson, 2000, p. 24)	*Improved executive strategic decision-making*
Godet	2001	"A scenario is simply a means to represent a future reality in order to shed light on current action in view of possible and desirable futures" (Godet, 2001, p. 63)	*A represented future reality*

Results and Findings: Examining the Dependent Variables

Some of the definitions examined here do not explicitly state the outcome variables of scenario planning. Many of the definitions feature imbedded outcome variables, which may support the notion that some definitions are unclear about their primary intentions. This also suggests that scenario planning professionals are just beginning to consider the importance of defining what they do and explicitly stating what they intend to achieve by doing it.

An examination of Table 1 shows that almost half of the available definitions date from 1997 to the present. The increase in recent scholarly literature around scenario planning might suggest a push to establish boundaries and begin the conversation of what it is that scenario planning purports to accomplish. This recent increase in scholarly works may also suggest that the process is developing and maturing with the help of concerned professionals (Fahey & Randall, 1998).

The outcome variables displayed in Table 1 can be grouped thematically into four major areas, suggesting four key outcome themes of scenario planning, namely, changed thinking, informed narratives or stories about possible or plausible futures, improved decision-making about the future, and enhanced human learning and imagination. These four outcome thematics are:

- Changed Thinking
- Informed narratives or stories about possible or plausible futures
- Improved decision-making about the future
- Enhanced human learning and imagination

The above themes are supported by a recent literature review (Chermack, Lynham, & Ruona, 2001). This review suggests that to inform decision making, learn through challenging the currently held mental models, enable organizational learning, and enable organizational agility, are all core aims of the scenario planning process. Of significant note is that none of the available definitions of scenario planning include an outcome or dependent variable of performance improvement.

Due to the high costs usually associated with the practice of scenario planning, it is surprising that performance improvement has not yet been made an explicit outcome of this strategic process. Perhaps it is assumed that scenario planning will result in performance improvement. However, while such an implicit assumption may be necessary, it is insufficient evidence that the practice of scenario planning actually results in performance improvement. Indeed, this lack of an explicit performance improvement outcome may point to a larger gap in the body of knowledge that is used to inform the practice and development of scenario planning. It is in the spirit of attending to these multiple outcome variables, including performance improvement that the Human Resource development (HRD) lens may have much to contribute to the development of the scenario planning process and also to future scenario planning, research, theory and practice. Primarily, the HRD lens, which is informed by the three theoretical foundations of psychology, systems, and economics, might contribute the view and theory of performance improvement (Swanson, 1999). As Swanson (1999) states "performance is the valued productive output of a system in the form of goods or services" (p.5). The push for performance based HRD has led to the development and application of theory building research methods (Lynham, 2000a; Swanson, 1999; Swanson & Holton, 2001; Torraco, 1995) that have been helpful in the growth and advancement of the HRD field. The recognition of performance (in terms of economics), in addition to learning, is a perspective that could contribute to the growth, maturity, and accountability of the process of scenario planning.

In an attempt to construct an integrative definition of scenario planning, it is important to include the thematics explicated in the examination of the available definitions highlighted in Table 1. By then adding the HRD perspective of performance improvement to these thematics, we can integrate the performance improvement component into this definition. Thus, after combining the HRD lens with the key thematics revealed by the available definitions of scenario planning, the authors suggest the following integrative definition of scenario planning: *Scenario planning is a process of positing several informed, plausible and imagined alternative future environments in which decisions about the future may be played out, for the purpose of changing current thinking, improving decision making, enhancing human learning and improving performance.* (Porter, 1985, Schwartz, 1991, Ringland, 1998, Shoemaker, 1995). This integrative definitional perspective of scenario planning may, in turn, further facilitate a push to evaluate and validate that the scenario planning process does indeed achieve what it purports to achieve, and that its informing theories hold up when examined against rigorous criteria for sound applied theory (Patterson, 1983).

The distinguishing factor for scenarios is that they are not predictions or forecasts. Scenarios are not concerned with getting the future "right", rather they aim at challenging current paradigms of thinking and rolling people into a series of stories in which attention is directed to aspects that would have been otherwise overlooked (Wack, 1985; Shoemaker, 1995).

Supporting Scenario Planning as an HRD Tool

Swanson (1999) describes three branches of the systems theory foundation of HRD, namely, general systems theory, chaos theory, and futures theory. "Futures theory is critical for sustainable performance because it prepares one to recognize and cope with an evolving future state" (Swanson, 1999, p. 17). If scenario planning is founded on theories that are found to validate relationships, it may be a tool that fits in the futures theory branch of the systems theory foundation of HRD (Chermack & Lynham, 2001). No attempts have been made to evaluate theories of scenario planning against rigorous criteria for sound applied theory (Patterson, 1983). From this perspective, scenario planning is potentially a critical tool for the HRD professional because it might help practitioners and scholars recognize and cope with a rapidly changing business environment and the uncertainties in considering the future.

Cummings & Worley (2001) describe several methods of integrating strategic change. Among such methods are strategic planning, open systems planning, integrated strategic change, and transorganzational development. Scenario planning can be viewed from this perspective as a strategic organization development intervention. Swanson, Lynham, Ruona, & Provo (1998) posit the Strategic Organizational Planning (SOP) model, which integrates scenario building into the strategic planning process through a recurring divergent-convergent inter-relationship: "scenario building flares out the thinking in its expansiveness and strategic planning reins in the thinking into an action plan" (p. 7).

Ringland (1998) also describes a method for using scenario stories to inform the strategy building process. Wilson (2000) outlines four approaches for using scenarios to inform business strategy and strategic decisions, namely: (1) a sensitivity/risk assessment, in which a specific strategic decision is evaluated through several scenario stories, (2) strategy evaluation in which scenarios act as "test beds" to evaluate the viability of an existing strategy, (3) strategy development (with a planning focus) which selects one scenario as a strategic starting point and uses the others to test the resilience of the strategy, and finally, (4) strategy development (without a planning focus) that assumes a goal of building the most resilient strategy for the largest variety of situations.

In recent years HRD professionals have seen an increasing emphasis on an active role in the strategy making and implementation process within organizations (Toracco & Swanson, 1999). In light of this aspired strategy-shaping role scenario planning must be seen as a tool of increasing importance to HRD research and practice in the future. As is evidenced by the examination of dependent variables of scenario planning, it is clear that one of the primary espoused goals of scenario planning is to alter current mental models of organization leaders. HRD professionals have a history and understanding of the theories of adult learning advocated by Piaget (1977) and Vygotsky (1986). Particularly the constructivist learning perspective, which encompasses theories of Piaget, (1977) Vygotsky (1986) and others (Fosnot, 1996) might inform the successful implementation of scenario planning (van der Heijden, 1997) as it attempts to alter mental models about managers' perceptions. Chermack & Van der Merwe (2001) make the connections between scenario planning and constructivist learning explicit with the intent of using constructivist learning theory to inform scenario planning practice. HRD professionals are in a unique position, with an understanding of these learning theories, to greatly improve the theory and practice of scenario planning in ways that business leaders and senior executives often overlook or are ill-equipped to do (van der Heijden, 1997).

Implications for Further Research

The conversation of boundaries and definitions is taking place in the field of HRD, and has been for several years (Holton, 1998; McLean, 2000; Ruona, 2000; Swanson, 1999; Torraco, 1998). Fahey & Randall (1998) suggest it is time that scenario planning professionals do the same and take a closer look at what they do, what they state that they do, and how they know they can achieve the results that they claim. The emerging questions concerning the outputs and boundaries of scenario planning may be a hint that scenario planning professionals may be moving in a similar direction. The further examination of these espoused boundaries, outcomes, and definitions is needed to ensure the future maturity and success of the scenario planning process. The dependent variables examined herein are labeled espoused dependent variables because there has not yet been a push or drive for evaluation in scenario planning. This lack of evaluation has been noted as a concern in the practice of scenario planning (Chermack, Lynham, & Ruona, 2001; Phelps, Chan, & Kapsalis, 2001; Gerogantzas & Acar, 1995). As an example, it is clear from the analysis of outcome variables that scenario planning aims to change managers' mindsets and improve decision-making. However, the evidence that scenario planning actually changes managers' mindsets, or improves decision-making is anecdotal (Wack, 1985a) and there have been few attempts to measure such claims. Although there are increasing efforts to evaluate the process (Phelps, Chan, & Kapsalis, 2001), there have been relatively few studies that establish the effectiveness of scenario planning.

Another concern is the theory base that informs the process of scenario planning (Chermack, Lynham, & Ruona, 2001). Dubin (1978) suggests that units, categories and themes aid in the development of theory. The themes revealed by examining the outcome variables of the scenario planning process suggest that several theoretical domains inform scenario planning. In order to establish the validity of the theories that underlie and inform the process of scenario planning, these theories must first be identified and then evaluated against some criteria for sound applied theory (Patterson, 1983). Once performance improvement has been recognized as a critical outcome variable of scenario planning the need to evaluate the process will naturally follow. As Swanson (1999) states: "Chasing after individual or organizational change without first specifying a valid unit of performance is inane. This is because change can take place while real performance declines" (p. 5). With the addition of the HRD lens, and more specifically the theoretical component of performance improvement, there would likely be a drive to evaluate not only the outcomes of the scenario planning process, but also the theory bases that inform the process. Doing so is likely to encourage and enhance more related research and theory development and, in turn, lead to better informed and improved practice of scenario planning.

Conclusions

This paper has attempted to present the available definitions and espoused outcome variables of scenario planning. This paper has also continued to support scenario planning as a significant tool for strategic HRD research and practice. Building on previous works (Swanson, Lynham, Ruona & Provo, 1998; Miller, Lynham, Provo, & St. Claire, 1997), this paper has further highlighted a number of ways in which using the theoretical foundations of HRD (Swanson, 1999), could result in improved scenario planning research, theory and practice. Specifically, this paper has identified four thematics that capture the espoused outcome variables of the scenario planning process, suggested the addition of a performance improvement outcome variable, and provided an integrated definition of scenario planning.

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Appreciative Inquiry: Assumptions, Approaches, and Implications for HRD

T. Marshall Egan
Texas A & M University

Cynthia McLean Lancaster
University of Minnesota

This study examines the assumptions, approaches and implications of Appreciative Inquiry for HRD. The central purpose of this inquiry was to explore the strengths and weaknesses of Appreciative Inquiry. Comparisons are drawn between Appreciative Inquiry and Action Research. In addition to outlining reported strengths and weaknesses of AI, the study revealed that in addition to being a stand-alone intervention approach, practitioners view Appreciative Inquiry as complementary to other organizational interventions.

Keywords: Organization Development, Appreciative Inquiry, Action Research

Practitioner approaches to organization development and change are regarded as important aspects of Human Resource Development (HRD) (Weinberger, 1998). Appreciative Inquiry (AI) is an organizational intervention approach that is associated with Action Research (AR). AI has been gaining recognition in the scholarly and practitioner communities (Bushe, 1999). AI is a set of unique philosophical assumptions and practices (Gotches & Ludema, 1995). Although in some ways similar to AR, a diagnostic approach introduced by Lewin (1948), AI practices involve a socio-rationalist approach to inquiry, interaction, planning, and implementation. AI scholars (Cooperrider & Srivastva, 1987) criticize AR as being overly focused on problem solving. The AI approach rejects a problem solving orientation. "The idea is to look at an organization as a positive force, understanding its strengths, and figure out how to refine and enhance what it—or a system within it—is already doing well" (Zemke, 1999). This paper reviews the assumptions forwarded by the AI approach, compares the AI approach to the AR approach, and reports findings from a qualitative inquiry involving AI practitioners.

Purpose and Theoretical Assumptions

This study examined philosophical assumptions, strategies and processes utilized in AI from the perspective of existing literature and experienced HRD practitioners. In order to differentiate and clarify the AI approach, comparisons between AI and AR are made. The research question utilized in this study was: What are the strengths and weaknesses of the AI approach from the perspective of experienced HRD practitioners utilizing AI?

AI was principally developed by David Cooperrider a professor at the Weatherhead School of Management, Case Western Reserve University. Cooperrider developed the AI approach along with Suresh Srivastva, Frank Barrett, John Carter, and others colleagues. They challenged the traditional problem solving approach to change management and introduced the term Appreciative Inquiry. AI has been used in international development efforts as well as within public and private sector organizations. The increased use of AI has led to its inclusion in the most frequently used organization development texts (Cummings & Worley, 2001; French & Bell, 1998). According to Bushe (1999), AI is one of the more significant innovations in AR in the past decade. Appreciative Inquiry "refers to both a search for knowledge and a theory of intentional collective action which are designed to help evolve the normative vision and will of a group, organization or society as a whole" (Cooperrider & Srivastva, 1987, p. 159). AI has been described as a philosophy of knowing, a methodology for managing change, and an approach to leadership and human development (Cooperrider & Srivastva, 1987; Hammond, 1998). Cooperrider and Whitney (1999) provided the following "practice-oriented" definition:

> Appreciative Inquiry is the cooperative search for the best in people, the organizations, and the world around them. It involves systematic discovery of what gives a system "life" when it is most effective and capable in economic, ecological, and human terms. AI involves the art and practice of asking questions that strengthen a system's capability to heighten positive potential. It mobilizes inquiry through crafting an "unconditional positive question" often involving hundreds or sometimes thousands of people. In AI, intervention gives way to imagination and innovation; instead of negation, criticism, and spiraling diagnosis there is discovery, dream and design. AI assumes that every living system has untapped, rich, and inspiring accounts of the positive.

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Link this "positive change core" directly to any change agenda, and changes never thought possible is suddenly and democratically mobilized. (Cooperrider & Whitney, 1999, p. 10)

AI is a product of the socio-rationalist paradigm (Gergen, 1982; 1990). From this perspective, reality is a product of the moment thus open to constant change and ongoing. Cooperrider and Srivastva (1987) argued that there is nothing inherently real about any particular social form. From this perspective there are no transcultural, everlasting, valid principles of social organization to be uncovered. According to AI practitioners and scholars, "Social phenomena are guided by cognitive heuristics, limited only by the human imagination; the social order is a subject matter capable of infinite variation through the linkage of ideas and action" (Cooperrider & Srivastva, 1987, p. 139). According to Bushe (1995), "Socio-rationalists argue that the theories we hold, our beliefs about social systems, have a powerful effect on the nature of social 'reality.' Not only do we see what we believe, but the very act of believing creates it" (p. 15).

The AI approach often engages an entire organization (Murrell, 1999). Cooperrider offered the "heliotropic hypothesis," which posits that social forms evolve toward the "light," toward images that are affirming and life giving (Hammond, 1998). From this perspective of AI, groups, organizations, communities, or societies have images of themselves that underlie self-organizing processes. AI promotes the principle that social systems tend naturally toward the most positive images held by their members (Bushe, 1995).

The expanding amount of literature and training on AI suggests an expanding use as an HRD intervention (Cady & Caster, 2000). AI is often identified as being related to AR (Barret, 1995). AR was developed in the 1940s and 1950s and was focused on creating a research method that would lead to both practical results and the development of new social theory. AR was positioned as an important tool in social and organizational change (Goldstein, 1992). A key emphasis of AR has been the establishment of a co-research agenda whereby practitioners and organizational members work side-by-side to analyze, implement, and evaluate systems change. AR was and continues to be a cornerstone of organization development (Rothwell, Sullivan, & McLean, 1995).

AR has been criticized as a flawed method of organizational change and as an inadequate process for developing new theory. Cooperrider and Srivastva (1987) criticized the lack of useful theory generated by traditional AR. They contended that both the method of AR and implicit theory of social organization used by AR are to blame. The problem, according to AI practitioners and scholars, is that most AR projects use logical positivistic assumptions (Sussman & Evered, 1978) that treat social and psychological reality as something fundamentally stable and enduring, or external to the individual and organization.

AI, it has been argued, alleviates the conflict and resistance to change often identified in literature about other approaches to organization development and change (Barron & Moore, 1999). Where other organizational interventions concentrate on the problems to be fixed (Cooperrider & Whitney, 1999), AI focuses on "what's working well." Instead of viewing an organization as having problems, AI views an organization as doing things right, and using those right things to build the organization's future (Hammond & Royal, 1998).

It is important to note that Burke (1982) and others (Rothwell, Sullivan & McLean, 1995; French & Bell, 1998) have argued organizational interventions should take a balanced approach. The balanced approach to investigation involves an examination of both what is going well and what are the problems or challenges being faced. Asking both questions does not fully support the claim that other approaches to organizational interventions are problem centered, but that they involve both positive results and visions for the organization as well as problems being faced by the organization (Burke 1982; Rothwell, Sullivan & McLean, 1995).

Comparing the Appreciative Inquiry Approach to Action Research

Because AI has been suggested as an alternative to AR, it is important to clarify the differences and similarities between the two approaches. References to practitioners in the following discussion refer to individuals who are involved in the implementation of an organization development and change effort. The following section will outline the AI approach and compare it to AR.

AI practitioners and authors have emphasized the importance of the appreciative interview. "We believe the seeds of change are implicit in the very first questions we ask" (Cooperrider & Whitney, 1999, p. 12). The appreciative interview and the "affirmative topic choice" have been reported to be essential parts of the initial stage of an AI intervention (see Figure 1 below). The selection of the topic for exploration is viewed as essential because AI researchers "believe the seeds of change are implicit in the very first questions" (Cooperrider & Whitney, 1999, p. 12). The step following topic identification, the discovery phase, is aimed at disclosing positive capacity regarding a chosen topic. AI researchers often recommend that everyone involved in the organization development and change effort participate in interviews "because, in the process, people reclaim their ability to admire, to be

surprised, to be inspired" (Cooperrider & Whitney, 1999, p. 14). A distinguishing characteristic of AI is that every question is positive in orientation (Hammond & Royal, 1998).

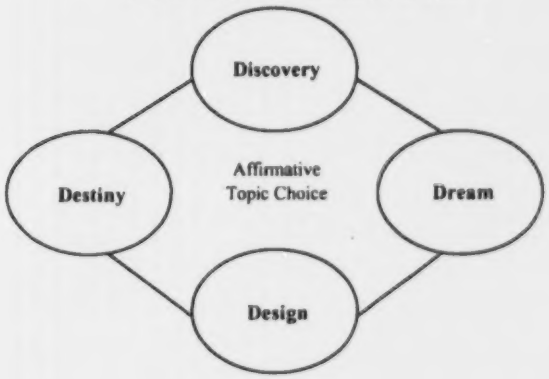
The third step is the dream phase (Cooperrider & Whitney, 1999). During this stage of intervention, insights from the first steps of the intervention are elaborated upon. From the perspective of the AI practitioner, the outlook and vision of the future for organization members is influenced by organization members' shared review of the data gathered in the previous phase. The reported results are identified as the organization's "dream" (Cooperrider & Whitney, 1999). The dream is often described as a compelling statement of strategic intent, a vision for what might be, or a powerful purpose.

The forth step in the AI process, the design phase, is identified as focusing on the creation of agreed-upon concepts and principles. The positive narratives collected in the discovery phase are used to create provocative questions and propositions (Cooperrider & Whitney, 1999). Because of their connections to positive stories, provocative questions or propositions are said to come from the positive core of the organization. An example of such a question provided by Cooperrider and Whitney is, "What would our organization look like if it were designed to maximize the positive core and accelerate realizing our dreams?"

When individuals come to agreement on the design stage, the AI process moves to the final destiny phase: "Originally, the final 'D' stood for 'delivery' and was dedicated to writing action plans, building implementation strategies and monitoring progress" (Zemke, 1999, p. 31). The final step in the AI process has more recently been described as focusing on sustaining the efforts of the previous stages (Cooperrider & Whitney, 1999).

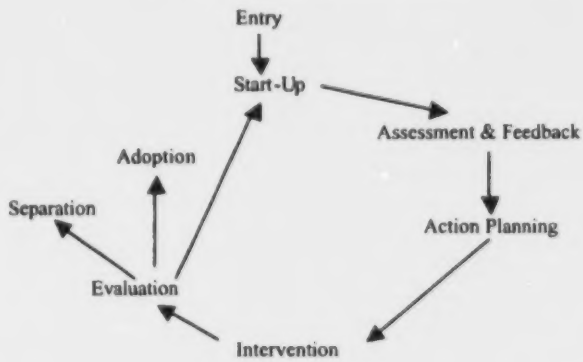
AR is a framework for diagnosing, implementing, and evaluating a change process (see Figure 2 below). "It allows for collaboration between practitioner and client throughout the process in order to distribute knowledge and understanding within the organization" (Cady & Caster, 2000, p. 80). Although there are several AR approaches varying from five to fourteen steps (Argyris, 1989; Barker & Barker, 1994; Cummings & Worley, 2000; Davis & Cook, 1998; DePoy, Hartman & Haslett, 1999; Edmonstone & Havergal, 1995; Lewin, 1948; McLean & Sullivan, 1989), the general approach involves data gathering, diagnosis, implementation, and evaluation of the intervention. Figure 2 identifies the eight-step AR process presented by McLean & Sullivan (1989) (see references above for more information regarding the techniques and assumptions associated with AR). Two of the differentiating factors between AR and AI can be found in the Assessment and Feedback stage, as well as the Evaluation stage, presented in the AR model below.

Figure 1. Appreciative Inquiry 4-D Cycle



Modified from Cooperrider & Whitney, 1999

Figure 2. A Model of Action Research



McLean & Sullivan, 1989

As previously mentioned, those involved in AI criticize AR as a problem solving focused approach. According to the AI literature, the problem solving approach of AR limits the opportunities for organizations to be successful because it reinforces existing beliefs instead of addressing the possibilities for the creation of new beliefs. AR is additionally criticized because it keeps the organization moving from one unsolved problem to another (Zemke, 1999). According to Cady and Caster (2000), there are three main challenges facing AR: (1) AR is problem-solving oriented in comparison to the "positive process frameworks" utilized in AI, (2) AR has been left open to interpretation resulting in AR models that have become complex and somewhat intimidating for practitioners, and (3) AR has not been utilized in conjunction with other organization development and change approaches. Despite

these challenges, AR has been widely utilized for several decades (Cummings & Worley, 2000). There have been recent suggestions (Cady & Caster, 2000; Golembiewski, 1999; McLean, 1996) to integrate AI and AR approaches.

Problems with the Appreciative Inquiry Approach

AI has received criticism as an approach to organization development and change. According to Golembiewski (1999), executives tend to favor an AI approach to organization development and change over other approaches since it is more likely to heighten integrative rather than punitive impulses. If executives ask employees to think of the accomplishments of the organization and of leadership, the only option the AI process presents is positive information. Therefore, AI may be viewed as attractive to those holding positional power because it averts focus away from organizational challenges and specific performance or behavioral issues that may be of concern to employees. However, employees may become frustrated with managers and executives unwilling to discuss important challenges being faced by the organization.

Critics of AI argue that there is currently little research supporting AI or differentiating it as more favorable than other approaches. McLean (1996) stated,

> Does appreciative inquiry have anything to say to our practice of OD? Certainly. But it's interesting how Cooperrider (legitimately) points to the paucity of research supporting the use of the AR model, yet provides no 'proof' (what would that look like, anyhow?) that appreciative inquiry can do any better. A synergistic approach will surely benefit all involved. (p. 3)

Golembiewski (1999) went on to say, "Social constructivism is an inhospitable foundation for anything that can be called empirical research, even loosely. And this 'creative theorizing' in AI takes on less the character of science than of advocacy, if not of self-serving spinning" (in Livingston, 1999, pp. 109-110).

Critics of AR have claimed that AR is an approach to organization development and change that focuses only on negative aspects or problems. A lack of a significant amount of research in support of AI opens the possibility that a balanced approach focusing on both the challenges and problem areas, organizational successes and best practices (Burke, 1982, p. 18), may be equally or more effective. An organizational intervention that includes features from both approaches may be most effective. As McLean (1996) stated:

> Appreciative Inquiry, however, seems to fall into the opposite trap of focusing only on what's going well, but still for the purpose of improving the organization and those within it. Improvement requires an understanding both of what's not working well and what can be built on because it is working well" (p. 2).

Methodology and Research Design

Because of the apparent lack of current practitioner-related information regarding the strengths and weaknesses of AI, an exploratory, qualitative study was undertaken. Key respondents were selected and questioned with the support of a consistent interview protocol. The data accessed from these interviews consisted of text in the form of rich oral descriptions (qualitative data). Frequencies and percentages of responses were organized to supply the reader with a summary of responses provided by interviewees. The following is a discussion of the interview protocol used to obtain more information regarding the strengths and challenges of AI.

Participant Interviews

Because of the lack of a public list of AI practitioners, a thorough literature search of HRD-related journals was undertaken. The researchers identified three professional associations that, based on available printed materials, journal articles and advertised workshops, were most likely to have practitioners involved in AI. Three professional associations (ASTD, ODI and AHRD) were contacted and asked for access to their published list of members. The identification of individuals who were known to facilitate AI was supported by cross-referencing literature from the professional associations with member listings. Assistance in identifying those professional association members involved with AI interventions was also requested from and provided by professional association contacts. The criteria for study participant identification included that they: (a) have been involved in several AI interventions; (b) had participated in AI interventions of an ongoing nature (not just a training event); and (c) had more than ten years' experience in HRD or related area.

Seventeen HRD professionals were identified as prospective participants. After contacting prospective participants, ten participants were identified as being experienced with AI to the level desired for the study. Seven HRD professionals agreed to participate in the study. The participants in the study included two Fortune 500 corporate HRD managers, one HRD manager from a medium-sized private sector organization, and four external

HRD consultants. The participants were involved in AI interventions in a variety of private sector industries, including financial services, retail merchandising, pharmaceuticals, information technology, food and agricultural products, energy, and manufacturing. Additionally, AI consultants were involved in public sector AI interventions, including public schools, foundations, healthcare organizations, and environmental associations. The employee size of the organizations reported to be part of AI interventions ranged from 7,000 to 160,000 in the private sector and 100 to 11,000 in the public sector.

Data Collection. The data were collected through interviews. The researchers conducted phone interviews with these seven experienced AI facilitators. A semi-structured interview guide was used to organize data collection during the interview process. Semi-structured interviews were selected because they are "reasonably objective while still permitting a thorough understanding of the respondent's opinions and the reasons behind them" (Borg & Gall, 1989, p. 452). Interview questions focused on process, perceptions, experiences, current status, and outcomes. Because content analysis was the planned mode for data analysis, questions were developed with sufficient breadth so as not overly to direct the responses to specific issues. An AI approach (Cooperrider & Whitney, 1999) was used for the first half of the interview before the introduction of critical or problem-solving questions.

Data Analysis. A qualitative thematic strategy for data analysis was employed to organize and to make judgments about the meaning of the data. Content analysis is an approach utilized for the systematic examination of text from the interview data. The researchers utilized an inductive approach to the development of the coding scheme utilized to analyze participant responses (Glaser & Strauss, 1967; Lincoln & Guba, 1985).

Findings

The following sections report the findings of the study.

Contributions of AI Approach

Through participation in open-ended questions, interviewees identified contributions of the AI approach. In response to the question, "In your view, what are the strengths of the AI approach?" HRD professionals identified several areas associated with improved relationships among co-workers and between managers and employees. Each respondent emphasized the importance of the AI approach to the development of a shared sense of new possibilities for the organization. Sample comments illustrating the importance of AI to improved relationships and shared understanding included:

> Appreciative Inquiry is an invitation to organization members from all levels to participate in the accessing of new possibilities for the organization and for all to engage in a goal setting process that begins with their collective imagination. Organization members discover the rich capacity of the system and the strengths of those around them.

> I am impressed with the ability of the AI approach to support organization members in the development of possibilities for the future. The process allows new ground to be broken around creativity, cooperation, and a clarified vision for the future that involves everyone.

An examination of the responses from participants indicated that all identified one of the most significant contributions of AI to be the development of cooperation in conjunction with improved skill development or improved utilization of interpersonal skills. This skill development was often attributed to the impact of the discovery phase of the AI process.

> I find AI useful in assisting organization members to develop a deeper understanding of one another through listening more effectively. This appreciative regard is demonstrated by listening, and responses support cooperation between employees and [between] employees and managers. This support fuels the movement toward organizational improvement and success.

> During an AI intervention, and beginning with my first question of them, the culture for appreciating one another shifts. Employees listen to each another more intently and focus more on the strengths each brings to the game.

The benefits of AI discussed by HRD professionals were not unlike those described to be the benefits of AR (Goldstein, 1992) or identified as the intended outcomes of organization development (Egan, 2001). However, HRD professionals interviewed for this study emphasized many of the points found in the AI literature, particularly

accessing of the "capacities of the organization" toward a "better future." As stated by one HRD professional, "Participants in the AI process experience a shift away from the problems toward the resources available to them and their co-workers. There is movement toward a realistic, more productive future that is high performing and dynamic."

In addition to the contributions described above, sixteen themes were identified during the interview process. The themes are provided below (Table 1) with associated frequencies and percentages for each response.

Table 1. *Strengths of AI Approach*

Strengths		f	%
1.	Provides opportunities for individuals to access new possibilities	7	100
2.	Invites imagination and positive imagery into the organization	7	100
3.	Connects organization members to a positive past	7	100
4.	Refines understanding about organizational capacity	7	100
5.	Captures positive organizational stories	7	100
6.	Helps to override previously difficult events	6	86
7.	Introduces new listening skills	6	86
8.	Reduces friction between employees	5	71
9.	Develops a better understanding of current organizational state	5	71
10.	Empowers employees to connect interpersonally	5	71
11.	Improves cooperation between co-workers	5	71
12.	Clarifies a new future picture for the organization	4	57
13.	Refocuses types of questions being asked by the organization	4	57
14.	Establishes confidence of individuals and teams	3	43
15.	Helps groups realize what is working well.	3	43
16.	Redirects negative stress	2	29

The positive contributions identified by the participants are supported by the literature reviewed in this study. Participants' descriptions of the contributions of AI are found in the language and explanation of the AI process. Interviewee comments parallel those of the AI literature, such as the opportunity to be involved in the discovery phase, whereby participants access and understand their organizational capacity and share in positive organizational stories. The creation of the dream, whereby positive imagery about the organization can be developed, is also referred to indirectly through mentioning opportunities for individuals to access possibilities and create positive imagery for the organization. Additional references by interviewees that supported the concepts associated with AI included the power of the narrative or story, the heliotropic hypothesis, and the organization's inner dialogue. The themes from the discussion about AI appear to have been more about the discovery and dream stages than the design and destiny stages in the AI model (Figure 1 above). As one participant said, "Because AI is so new, it is important that we emphasize the initial stages of the AI process, so that we may better understand where it may lead. Without starting the process correctly, we may be unable to determine the long term impact of AI."

Weaknesses of the AI Approach

In response to the question, "What are the weaknesses of the AI approach?" all participants identified three challenges, including: difficult interpersonal situations may be overlooked and remain unidentified as challenges to the success of the group or organization; feelings of anger or frustration are not voiced and may become barriers for some employees; and dissatisfied organization members retreat and withdraw from the process because they are unable to feel included by the AI approach. Two HRD professionals responded as follows:

> During an AI intervention it is sometimes difficult for the deeply rooted challenges between individuals to be addressed effectively. Employees may find some challenges to engaging authentically in the process when previously strained relationships show themselves in one-on-one relationships. This has been an ongoing challenge for a couple of my clients.

> We want everyone to participate in the process but find that some refuse and withdraw. They don't directly impair the development of the team; they just remain passive. Some [organization members] have indicated that they feel they are unable to voice their true feelings...like anger.

Another theme from the interviews was that managers might avoid challenges by focusing on "the positive". As indicated by one interviewee, "I have been asked a couple of times by employees as to how they can be heard when their manager is not open to acknowledging when difficulty occurs." Several of the HRD professionals discussed

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their observations that managers may use the AI approach inconsistently, resulting in a lack of focus on the key messages forwarded by the AI process and the long- term commitment to AI may be more challenging for organizations than other interventions. The ten themes identified by interviewees may be found in Table 2 below.

Table 2. *Weaknesses of AI Approach*

Weaknesses	f	%
1. Difficult interpersonal situations may be overlooked	7	100
2. Feelings of anger or frustration not voiced	7	100
3. Dissatisfied organization members retreat and withdraw	7	100
4. Managers may avoid challenges by focusing exclusively on "the positive"	6	86
5. Managers may use AI approach inconsistently	5	71
6. Long-term commitment may be more challenging than other interventions	5	71
7. Problem solving can result in useful types of elaboration	4	57
8. External constituents expect problem solving process	4	57
9. Cultural preferences make participation difficult for some	2	29
10. Employees may become frustrated with managers' new terminology	2	29

The challenges for AI identified by interviewees reflected many of the same concerns found in the literature. Few participants felt that the lack of research on AI was an important consideration in the identification of challenges to AI. It was explained that AI is too new of an approach to have been well researched. The major concerns are associated with the challenges faced when only positive content is the focus of workplace interactions. One study participant stated, "It is difficult to watch individuals who feel they must speak in negative or critical terms; some of them seem unable at times to redirect their energy into a positive direction. We must continue to pay attention to the more subtle interactions between organization members, so that we can better understand how the focus on positive imagery and communication is or is not transferred."

Finally, interviewees were asked whether AI could effectively be included with AR or other problem-solving approaches. Interviewees were divided in their responses. Several interviewees indicated that AI could be used in conjunction with other approaches because "it is important that the strength of AI be tapped, but it is also recognized that in some cases it is a consulting approach that can be used in conjunction with other approaches." Others disagreed indicating that the movement toward a combined AI and AR approach was "misguided and misses the point of the approach. We need to embrace the philosophy behind AI, not just use part of it." The mixed response to this question is similarly to the various discussions in literature about AI. (Bushe, 1995; Cady & Caster, 2000; Golembiewski, 1999; Schiller, 1998)

Discussion

This study explored the AI approach to organizational interventions and found sixteen specific strengths and ten specific weaknesses to the AI approach as reported by study participants. The participants in this study supported many of the strengths of AI reported in the literature (Bushe, 1995; 1998; Cooperrider & Srivastva, 1987; Jones, 1998). Further, this study found support for the potential limitations of AI as an exclusive organization intervention approach (Cady & Caster 2000; Golembiewski, 1999; McLean, 1996). The perspectives shared by the participants in this study further elaborate on AI as an HRD practice. Although there may be some differences in opinion regarding the exclusive use of an AI approach in HRD interventions, the uniqueness of the AI approach may be beneficial to HRD, even if merged with AR approach (see Cady & Caster, 2000). The results from this study are not generalizable, but elaborative. Future examination of AI interventions from both interpretive and positivistic research perspectives is recommended. For instance, the advantages and disadvantages of AI discussed in this study could be used as the basis for future development of a survey to be used with a large group of HRD practitioners. Additionally, comparative research, such as that performed by Jones (1998), and other case study research may be of benefit to determine the impact of AI practices. Finally, interpretive studies examining the experiences of practitioners and participants involved in AI interventions may be of benefit to scholars and practitioners.

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Toward Transformational Learning in Organizations: Effects of Model-II Governing Variables on Perceived Learning in Teams

Blair K. Carruth
Salt Lake Community College

This study examined the effects of Model-II variables on perceived team learning by intervening the variables into three experimental groups. For two variables, perceived team learning was significantly lower than the control group. However, additional analysis revealed that the main effects were uncertain; regardless of which Model-II variable was introduced, perceptions of team learning may have depended on an interaction between gender and employment status and by a possible interaction between gender and education level.

Keywords: Model-II, Double-loop, Transformational

The study of learning organizations is a growing line of inquiry that has been approached from a number of disciplines and perspectives. With the decline of the industrial economy, organizations, profit and non-profit, representing all industries must seek to find and develop organizational members who have learned how to learn and who can work with other organizational members to enact systemic organizational change at an increasingly rapid pace.

It behooves organizations to understand the dynamics behind team and organizational learning so they may capitalize on interventions that produce desired learning impact. Model-II is a theory postulated by Argyris and Schön (1978, 1996) that describes conditions upon which deep-rooted or transformational learning within organizations may take place. The model presents three governing variables: (a) valid information, (b) free and informed choice, and (c) internal commitment. Numerous studies have been performed to examine this model, mostly utilizing qualitative in-field methodologies. However, post intervention studies failed to provide evidence of sustained learning (Argyris and Schön, 1996), rendering use of the model problematic. Argyris and Schön suggested a need exists to develop studies that utilize design methods that examine Model-II from perspectives different from those used in the past.

Quantitative research using experimental design methodologies is now emerging as a strategy to examine the model. Recent quantitative studies have shown evidence of transformational learning when Model-II interventions were employed (Kardatzke, 1996; Jeris, 1997; Ritchie, 1999). While these studies have made contributions to the Model-II line of inquiry, they examined the model holistically leaving one to question which parts of the model may have more impact on organizational learning.

The primary purpose of this study sought to identify the effects of each Model-II governing variable on perceived team learning. A secondary purpose of this study sought to contribute results that might be compared to future studies to either increase or decrease acceptance and subsequent use of Model-II by providing indication of the model's impact on organizational learning.

Theoretical Framework

Argyris and Schön (1978, 1996), Argyris (1998), Marsick (1988), and Schön (1983), discussed the need for inquiry that leads to transformational change in organizations. Argyris and Schön and Argyris differentiated between single-loop learning and double-loop learning which may be compared to the difference between behavior based on obligation versus behavior based on beliefs and/or values. One type of learning, single-loop, may be transitory, while the other, double-loop, is transformational. Transformational learning, within the context of organizational learning, was said by Argyris and Schön to alter traditional theories-in-use which can be defined as basic assumptions that guide practice. People within organizations need to discuss the undiscussable by challenging existing theories-in-use and questioning the assumptions upon which those theories are based.

Similarly, Marsick (1988) called for organizational members to engage in critical reflection. Critical reflection probes for assumptions, values, and beliefs that underlie action. Once these assumptions, values, and beliefs become explicit they can be tested, questioned and challenged. This process leads individuals and groups to understand the rationale behind actions, and it leads to learning that is rooted deep in values. The skill to critically reflect, and the learning which results from it, is akin to double-loop learning (Argyris and Schön 1978, 1996) or transformational learning (Mezirow 1991, 1996).

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Senge (1990a, 1990b) suggested reflective thinking causes organizational members to consider their mental models and helps them develop personal mastery that is at the heart of a learning organization. It is through such development that generative learning takes place, that is, the ability to create something new which is of value to others. Viewing the whole organization, and not looking myopically and exclusively at component parts, allows shared visions to be developed by organizational members. Such holistic thinking is at the heart of systemic thinking which, according to Senge, must be present in order for a learning organization to evolve.

Research Question

Argyris and Schön (1996) noted that despite their efforts over years of qualitative research to find evidence of double-loop learning, such evidence occurred so infrequently, they referred to them as "rare phenomena" (p. 112). The development of transformational or double-loop learning capability is strongly advocated in the literature (Marsick, 1988; Marsick and Watkins, 1994; Senge, 1990a; Watkins and Marsick 1993). To encourage further study and to provide more substantial empirical grounding for Model-II, Argyris and Schön suggested a methodological approach different from those used in the past could be employed by engaging research that envisions and enacts organizational settings. This suggestion opens the door to examine Model-II under controlled conditions utilizing experimental designs.

In response to Argyris and Schön's suggestion, recent studies have tested Model-II utilizing experimental and quantitative methodologies (Kardatzke, 1996; Jeris, 1997; Ritchie, 1999). These studies provide a new approach to analyze Model-II, yet much work is needed to more fully understand the model's effects in organizations and the conditions that must be met in order to develop transformative learning capacity.

Each of the studies cited above examined Model-II in an holistic sense; they did not break the model into components to see which parts might have an impact on learning. This study continued the Model-II line of inquiry by individually testing the effects of the three Model-II governing variables by asking one fundamental question: Are there significant effects from any of the three Model-II variables on perceived team learning?

Methodology and Limitations

Overview of Methodology

To analyze the fundamental research question, a convenience sample of 80 people was drawn from a population of students enrolled Fall Semester, 2000 in the Business and Society course at Salt Lake Community College. Participation in the study was voluntary. A control group and an experimental group representing each Model-II variable were randomly selected from this sample. Each group was randomly divided into four teams of five people each. Participants were not informed that they were assigned to an experimental group or to the control group nor did they know that different groups were receiving different interventions until after the experiment was completed.

Each team met four times over a two-week period. Each meeting consisted of a 50 minute one clock hour class period. Thus, total intervention impact time was 320 clock hours (80 participants times four one clock hour meetings).

A facilitator trained in group facilitation and process implementation was hired to conduct the intervention for each treatment group. Each team within each group met in the same room. Teams among different groups, however, did not meet together. Team members had little opportunity to communicate with other teams within their respective groups, and they were instructed not to communicate with anyone about the study outside their assigned meeting times.

Each team was given a business problem to solve. The same problem was given to each team among all four groups. However, treatment between the experimental groups differed. For each experimental group team, an instrument designed to elicit behaviors associated with that team's randomly assigned Model-II variable was used and displayed during the team's discussions. As the facilitator worked with each team, she reminded team members of the displayed behaviors and encouraged those behaviors to surface and to be manifested in team actions.

All materials used in the experiment were collected at the end of each meeting and were redistributed at the beginning of the following meeting. At the conclusion of the last meeting all materials were gathered and kept by the researcher.

During the last meeting session, the Dimensions of a Learning Organization Questionnaire (DLOQ) (Watkins and Marsick, 1997) was administered. Construct validity of this instrument was tested and confirmed by Yang, Watkins, and Marsick (1998). The DLOQ instrument measures perceptions of organizational learning within groups (or teams) among seven dimensions. Each dimension can be scored separately, and an aggregate score can also be

calculated. This researcher was interested in how these interventions affected overall perception of team learning, therefore, this study did not examine differences between the seven dimension scores. Rather, aggregate DLOQ scores were used as the basis of comparison between and within treatment groups.

Demographic information was collected on each participant on a separate form at the time the DLOQ was administered. After group participants had completed the DLOQ they were debriefed, and disclosure was made regarding the purpose of the research and the different group treatments.

Aggregate DLOQ scores were analyzed between groups and between teams within groups through analysis of variance (ANOVA). Statistical analyses conducted for this study were performed using Statistical Package for the Social Sciences Version 8.0.

Missing Data

Missing data was minimal. Of 3440 possible data points (80 participants times 43 DLOQ items), only 12 items were not answered by participants, representing 0.35% of all possible data points. An additional three items, or 0.09% of the total, were double marked, meaning that more than one answer was given to a DLOQ response item. These double-marked entries were treated as missing data since it was not possible to determine the participants' intended answers. Missing data were replaced by the averages of individual scores for the given DLOQ items within the respective teams.

Hypotheses Tested

Hypothesis 1. There is no difference in aggregate DLOQ scores between the experimental group receiving valid information intervention and the control group.

Hypothesis 2. There is no difference in aggregate DLOQ scores between the experimental group receiving free and informed choice intervention and the control group.

Hypothesis 3. There is no difference in aggregate DLOQ scores between the experimental group receiving internal commitment intervention and the control group.

Hypothesis 4. There is no difference in aggregate DLOQ scores between experimental group teams receiving valid information intervention.

Hypothesis 5. There is no difference in aggregate DLOQ scores between experimental group teams receiving free and informed choice intervention.

Hypothesis 6. There is no difference in aggregate DLOQ scores between experimental group teams receiving internal commitment intervention.

Hypothesis 7. There is no difference in aggregate DLOQ scores between the control group teams.

Hypothesis 8. There is no difference in aggregate DLOQ scores between the experimental group receiving valid information intervention and the experimental group receiving free and informed choice intervention.

Hypothesis 9. There is no difference in aggregate DLOQ scores between the experimental group receiving valid information intervention and the experimental group receiving internal commitment intervention.

Hypothesis 10. There is no difference in aggregate DLOQ scores between the experimental group receiving free and informed choice intervention and the experimental group receiving internal commitment intervention.

Pilot Study

Prior to the study, a pilot study was conducted to provide a trial run of the procedures, instrumentation, and test statistics. The same facilitator was hired to conduct both the pilot project and the full study. The pilot project provided confidence that the procedures, instrumentation, and test statistics planned were appropriate. In addition, it

provided an opportunity to develop a method for dealing with missing data and absenteeism, established a data base format for data management, and provided a sample run of the statistics used in the full study.

Limitations

Two limitations of this study are worthy of note: (a) sample selection, and (b) impact of intervening variables and possible intervention effects.

Sample Selection. The convenience sample selection method employed in this study drew from a generally broad-based population, however, it did not represent an adult population at large. Care should be taken to not infer study results to external populations.

Impact of Intervening Variables and Intervention Effects. Four possibilities exist in considering the effects of the Model-II intervention. There is insufficient evidence to ascertain definitive claims as to which of these four possibilities occurred. First, it is possible the intervention did not impact DLOQ scores, and that any significant effects may have resulted from non-controlled or intervening variables. Second, it is possible the Model-II intervention effects may have impacted DLOQ scores in the opposite way from what was anticipated. Third, it is possible the effects of the Model-II intervention may have affected DLOQ scores as anticipated, leading to higher DLOQ scores, but that the effects of non-controlled or intervening variables were stronger than the effects of the Model-II variables, thus overshadowing evidence of Model-II impact. Fourth, it is possible the effects of the Model-II intervention were weakened by isolating the three variables into separate treatment groups, thus rendering a less effective impact on perceived learning.

Results and Findings

Analysis of Hypotheses

Each of the ten hypotheses is analyzed below. A one-way ANOVA with 4 levels, one level for each treatment group, was conducted to analyze Hypotheses 1 through 3 and 8 through 10 (Table 1). Separate one-way ANOVAs were conducted to analyze each of the remaining 4 hypotheses (Table 1). For all ANOVAs the alpha level was set at .05.

Hypotheses 1 - 3. ANOVA results indicated sufficient evidence exists to suggest there is a significant difference between aggregate DLOQ scores by treatment group, $F(3,76) = 3.622$, $p < .05$. Post hoc testing was conducted utilizing the Tukey Honestly Significant Difference (Tukey HSD) method. Results of these tests show sufficient evidence ($p < .05$) to suggest the mean of the valid information group is significantly lower than the control group mean and that the mean of the free and informed choice group is significantly lower than the control group mean. There was not sufficient evidence ($p > .05$) to suggest the mean of the internal commitment group was significantly different from the control group mean, although the internal commitment group mean was lower than the control group mean.

Hypothesis 4. A one-way ANOVA was performed comparing aggregate DLOQ scores between the four teams within the valid information experimental group. Results of this ANOVA indicated there is sufficient evidence to suggest the means of the teams within the valid information treatment group are significantly different, $F(3,16) = 3.688$, $p < .05$. Tukey HSD post hoc tests revealed significant differences ($p < .05$) between Teams 3 and 4.

Hypothesis 5. A one-way ANOVA was performed comparing aggregate DLOQ scores between the four teams within the free and informed choice experimental group. Results of this ANOVA indicated there is not sufficient evidence to suggest the means of the teams within the free and informed choice treatment group are significantly different, $F(3,16) = 1.421$, $p > .05$.

Hypothesis 6. A one-way ANOVA was performed comparing aggregate DLOQ scores between the four teams within the internal commitment experimental group. Results of this ANOVA indicated there is sufficient evidence to suggest the means of the teams within the internal commitment treatment group are significantly different, $F(3, 6) = 9.483$, $p < .01$. Tukey HSD post hoc tests revealed significant differences ($p < .05$) between Teams 1 and 3 and between Teams 3 and 4.

Hypothesis 7. A one-way ANOVA was performed comparing aggregate DLOQ scores between the four teams within the control group. Results of this ANOVA indicated there is sufficient evidence to suggest the means of the teams within the control group are significantly different, $F(3,16) = 3.605$, $p < .05$. Tukey HSD post hoc tests revealed significant differences ($p < .05$) between Teams 2 and 4.

Hypotheses 8 - 10. ANOVA results show sufficient evidence to suggest there is a significant difference between aggregate DLOQ scores by treatment group, $F(3,76) = 3.622$, $p < .05$. However, in examining post hoc tests using the Tukey HSD method, there is not sufficient evidence ($p > .05$) to suggest the means of any of the experimental groups were significantly different from each other.

Table 1. *Results of One-way ANOVAs Based on Aggregate DLOQ Scores*

Variable	*Between MS*	*df*	*Within MS*	*df*	*F*
Treatment Groups	4359.17	3	1203.49	76	3.622***
EGVI*	2676.63	3	725.76	16	3.688**
EGFC*	1756.51	3	1236.13	16	1.421
EGIC*	5196.16	3	547.93	16	9.483***
CG*	3014.18	3	836.08	16	3.605**
Education	7031.74	2	1175.05	77	5.984***
Employment	4928.41	2	1229.68	77	4.008**
Gender	2704.11	1	1305.62	78	2.071
Education- Female	558.21	2	879.15	24	.539
Employment- Female	292.88	2	901.26	24	.325
Education- Male	8533.71	2	1251.10	50	6.821***
Employment- Male	10131.31	2	1187.19	50	8.534***

*EGVI- Experimental Group Valid Information; EGFC- Experimental Group Free and Informed Choice; EGIC- Experimental Group Internal Commitment; CG- Control Group.
** $p < .05$; *** $p < .01$.

Discussion

Results showed a significant difference in mean aggregate DLOQ scores between the control group and the valid information experimental group and between the control group and the free and informed choice experimental group. There was not a significant difference between the control group and the internal commitment experimental group. In short, for each of the three experimental groups, the aggregate DLOQ score means were lower than the mean of the control group with significant differences between the control group and two of the three experimental groups.

An underlying premise inherent in this study, based on studies by Kardatzke (1996), Jeris (1997), and Ritchie (1999), suggested that if there were a significant main effect, the experimental group means would have been higher than the control group mean. However, the opposite occurred; perceptions of team learning were lower, as measured by the DLOQ instrument, for those groups that received a Model-II intervention. Three areas of inquiry provide explanations that may account for these unanticipated differences: (a) type-I error probability, (b) internal and external validity, and (c) demographic variables. Each of these three areas is discussed below.

Type-I Error. The probability of committing a type-I error was calculated to be .017, suggesting there is only a 1.7% probability that there is no significant difference in aggregate DLOQ scores between the control group and at least one of the three experimental groups. This probability is well within the stated alpha level of .05.

Internal and External Validity. The significant differences discussed in relation to Hypotheses 4, 6, and 7 provide an indication that validity issues may have accounted for differences between teams within treatment groups. Yet in analyzing validity factors, there was inclusive evidence that such factors affected DLOQ scores.

Demographic Data Analysis. Education level, employment status, and gender data were collected on each participant. While it was not an objective of this study to measure the effects of these variables on aggregate DLOQ scores, in pursuing reasons why the control group mean was higher than all three experimental groups and significantly higher than two of the experimental groups, it was believed an analysis of these demographic variables might provide insight for this seemingly inverse relationship between treatment condition and aggregate DLOQ scores. This analysis proved fruitful in explaining possible influences on aggregate DLOQ scores.

Separate one-way ANOVAs were performed for education level, employment status, and gender (Table 1). Results of the education level ANOVA showed a significant difference between levels of education and aggregate DLOQ scores, $F(2,77) = 5.984$, $p < .01$. Tukey HSD post hoc tests revealed that those with bachelor's degrees had significantly lower aggregate DLOQ scores than those with associate's degrees or those with high school completion or less. It should be noted, however, that the associate's degree and bachelor degree levels had only six participants and two participants, respectively.

The ANOVA for employment status showed a significant difference in aggregate DLOQ scores between different levels of employment status, $F(2,77) = 4.008$, $p < .05$. Tukey HSD post hoc tests revealed participants who were employed full-time had significantly lower aggregate DLOQ scores than did those who were not employed. Further, the mean aggregate DLOQ scores across all three levels of employment status declined as employment status advanced from not employed to employed full-time.

The ANOVA for gender did not show a significant difference in aggregate DLOQ scores between males and females, $F(2,77) = 2.071$, $p > .05$. However, when education level and employment status were examined by female and male participants separately, significant differences were found.

For female participants, significant differences in aggregate DLOQ scores were not evidenced at different levels of education and employment status, $F(2,24) = .635$, $p > .05$, and $F(2,24) = .325$, $p > .05$, respectively. In contrast, significant differences in aggregate DLOQ scores were manifested among different levels of education and employment status for male participants, $F(2,50) = 6.821$, $p < .01$, and $F(2,50) = 8.534$, $p < .01$, respectively. In both analyses, scores for males were generally higher than scores for females. Post hoc tests could not be performed for education level when filtered for males because the bachelor's degree level had only one male participant. For employment status, however, Tukey HSD post hoc tests revealed male participants in the full-time employment category had a significantly lower mean score than male participants in both the part-time and not currently employed categories.

From this information it appears there may be an interaction between gender and education level and between gender and employment status. That is, there is evidence to suggest that the effects of education level and employment status on aggregate DLOQ scores depends on gender. To test these possible interactions, two two-way ANOVAs were performed, one for gender and education level and another for gender and employment status.

The two-way ANOVA for gender and education level (Table 2) did not suggest a significant interaction, $F(2,74) = 2.094$, $p > .05$, but, like the one-way ANOVA, it did reveal a significant main effect for education level, $F(2,74) = 5.709$, $p < .01$. However, in reviewing the interaction plot, gender lines crossed through different levels of education, suggesting a disordinal interaction. When education level was filtered by gender, a significant difference was found with males but not with females. Thus, although an interaction was not found with the two-way ANOVA, perhaps an interaction exists nonetheless. Care should be taken, however, in drawing a conclusion because the analysis presents mixed results, and there were only eight participants in the associate's degree and bachelor's degree levels.

Table 2. *Results of Two-way ANOVA for Education Level and Gender Based on Aggregate DLOQ Scores*

Source	*SS*	*df*	*MS*	*F*
Education level (E)	12907.77	2	6453.88	5.709*
Gender (G)	1751.05	1	1751.05	1.549
E X G	4734.82	2	2367.41	2.094
Error	83654.41	74	1130.47	

*$p < .01$.

Results of the two-way ANOVA for gender and employment status (Table 3) revealed a significant interaction, $F(2,74) = 4.374$, $p < .05$, and the interaction plot suggested a disordinal interaction as two gender points crossed

through different levels of employment status. This analysis is consistent with that of the one-way ANOVA which suggested an employment status main effect when data was filtered for males but not when filtered for females.

Table 3. *Results of Two-way ANOVA for Employment Status and Gender Based on Aggregate DLOQ Scores*

Source	*SS*	*df*	*MS*	*F*
Employment status (E)	4306.14	2	2153.07	1.967
Gender (G)	5539.82	1	5539.82	5.062*
E X G	9575.22	2	4787.61	4.374*
Error	80989.87	74	1094.46	

*$p < .05$.

This analysis of demographic variables may lead to two assumptions that could explain the outcomes of this study. First, the effects of education level on aggregate DLOQ scores may depend on gender. Second, the effects of employment status on aggregate DLOQ scores may depend on gender.

Data tabulated from the sample seem to support these assumptions. In reviewing cross tabulations for males by part-time employment and less than an associate's degree, the data shows the control group had higher counts of males who were employed part-time and who had less than an associate's degree than any of the three experimental groups.

Upon analyzing the two assumptions stated above within teams across treatment groups, higher mean aggregate DLOQ scores were generally found to exist among males with lower levels of education and who worked less than full-time. This may explain the significant differences found in the analyses of Hypotheses 4, 6, and 7. Further, the two groups that had significantly different aggregate DLOQ scores from the control group had fewer males, fewer people with less than an associate's degree, and fewer people who worked less than full-time.

Conclusion

Results of this study generally found that the effects of any of the three Model-II governing variables as measured in this study are uncertain. While significant differences were found between the control group and two of the experimental groups, free and informed choice and valid information, the control group mean was higher than the three experimental group means. It was assumed that significant differences would have revealed opposite results. It is inconclusive whether the intervention affected perception of team learning to be lower than anticipated or whether other variables accounted for these results.

In examining the data, three possibilities were considered: (a) type-I error probability, (b) internal and external validity, and (c) demographic variables. Of these three possibilities, the effects of demographic variables hold the most promise for explaining significant differences between the experimental and control groups with the strongest explanation evidenced by a significant interaction between employment status and gender. Males who worked less than full time and had less than an associate's degree generally reflected higher DLOQ scores than other participants.

Contributions

This study makes a contribution to new methods for Model-II inquiry and provides encouragement and justification for more extensive studies that employ sample selection techniques that draw from a broader-based population. The study may be used in comparison to future studies to either increase or decrease acceptance for Model-II by providing indication of Model-II impact on organizational learning, as well as the effects of demographic variables on organizational learning such as employment status, education level, and gender.

Recommendations for Future Research

Possibilities for additional inquiry are suggested below.

Replicate this study while controlling for gender, education level, and employment status to test the effects of the interaction of education level and gender and the interaction of employment status and gender on perceived team learning. Assess whether Model-II intervention effects lead to lower or higher perceived team learning scores or if there is no change in perceived team learning.

Repeat this study while drawing randomly from a broader-based population, then compare results of this study to the intervention effects of the new study.

Develop an intervention that could be applied to a sample population within an organization to test for organizational learning as opposed to organizational learning within teams.

Develop an intervention where the Model-II variables are tested in isolation from one another as well as holistically.

Conduct longitudinal studies which measure retention of Model-II impact on team and/or organizational learning.

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Training for Team-Based Work: A Study on the Relation between the Organization of Teamwork and Team Training

Rob F. Poell
Ferd J. van der Krogt
Ad A. Vermulst
University of Nijmegen, The Netherlands

This paper describes a comparative case study among 27 organizations from the industrial and services sectors, which have introduced team-based work. Teamwork is often associated in literature with better opportunities for employee development than traditional work systems (e.g., Ellström, 1999). Variations in team training were found to be unrelated to differences in the organization of teamwork. The self-directed teams in our sample did not provide a better, or even different, training context to their members than other teams did. The study raises questions about the prevalence of teamwork as a context for learning and discusses some directions for further research.

Keywords: Team-Based Work, Team Learning, Comparative Case Study

The subject of learning and training in work teams and groups has received a lot of attention over the past decade. Groups and work teams have always been regarded as contexts for employee development in literature on organizational development (French and Bell, 1995; Brown and Keep, 1999). The topic is also an object of concern in literature on the learning organization (Watkins & Marsick, 1993). Groups and work teams are considered powerful learning environments (Tjepkema, Kessels, & Smit, 1999; Onstenk, 2001) and work is increasingly expected to be organized in teams (Ellström, 2001).

Learning in groups is often studied in an experimental laboratory setting, with groups made up especially for the experiments concerned and consisting predominantly of students (Jeris, 1998). Also, there have been studies of managerial teams (e.g., Burgoyne & Reynolds, 1997), interdisciplinary teams (e.g., Cooley, 1994), and temporary project groups (task forces). Production teams, engaged in the primary process of an organization, however, have rarely been at the focus of empirical research (Hendry, 1996; Imel, 1996; Willis & Boverie, 1998).

What we do know from empirical research, however, is that in practice groups and teams as organizational forms turn out to be less prevalent then predicted (Benders, 1999; Dankbaar, 2000; Sey, 2001). Furthermore, empirical research provides little evidence for the high expectations concerning their performance, opportunities for participation, member satisfaction and motivation (Boot & Reynolds, 1997; Poutsma, 1998; Russ-Eft, Preskill, & Sleezer, 1997). Moreover, empirical results sustaining the alleged learning potential of group work are scarce (Van Klaveren & Tom, 1995; Hoogerwerf, 1998; Willis & Boverie, 1998). *NB Because of space constraints not all Dutch studies are included in the reference list. A full paper containing those will be handed out at the conference.*

Theoretical Framework and Research Questions

Ellström (2001) distinguishes between traditional and learning-intensive work systems. Traditional work systems are characterized by a high degree of specialization, standardization, individualization, and supervisory control. Learning-intensive work systems, on the other hand, have integrated tasks and functions, informal communication, a team-based work structure, and a control system based on self-management (cf. Table 1). Onstenk (2001) presents similar ideas about the relationship between the characteristics of work and its learning potential.

Table 1. *Traditional and Learning-Intensive Work Systems (Ellström, 2001).*

Aspects of Work Design	Traditional Work Systems	Learning-Intensive Work Systems
Division of Labor	High degree of specialization (functional orientation)	Integration across tasks and functions (process orientation)
Co-ordination	Standardization through formal instructions and rules	Informal communication and mutual adjustment
Work Structure	Individualized	Team-based
System of Control	Supervision	Self-management

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In the Netherlands, team-based work has been studied intensively (e.g., Van der Klink & Ter Horst, 1988; Hoogerwerf, 1998). Team-based work has been introduced in a number of companies in the Netherlands. In 1996, the Business School of Nijmegen University carried out a structured qualitative investigation into team-based work in forty of such companies. The principal questions in this survey were: In what ways are companies implementing team-based work and what forms of team-based work are they using? In addition, the investigation contained a number of questions about the ways in which the learning of team members is organized. This paper is based on a secondary analysis of data from said investigation. It aims to study empirically the relation between the way work is organized in teams and the organization of their training. The analysis will enable us to test for the Dutch situation whether the positive expectations about the learning potential of team-based work have an empirical basis.

Team-based work comes in a variety of forms (Hackman, 1991; Van Hooft, De Nijs & Poutsma, 1997). Whereas the content and organization of work in self-directed teams are assumed to result in learning-intensive arrangements (Ellström, 2001), more traditional teams are expected to be less proactive in organizing their own training arrangements. In other words, following the ideas of Ellström (2001) described above, one expects to find at least a certain relationship between various forms of team-based work and the way in which training in these teams is organized.

The following three questions will thus be investigated in the current study:

1. How exactly is work organized in team-based work?
2. How do work teams organize the training of their members?
3. Is there a relationship between the way teams organize their work and the organization of training in these teams?

Research Methodology

Forty large Dutch companies were approached, twenty-seven of which turned out to be suitable for an analysis of training data. Among these companies twenty-two were in the industrial or manufacturing sector (e.g., energy, printing, and nutrition firms) and five in the logistics or financial services sector (e.g., banking, auction, and insurance companies).

One well-informed representative, usually the personnel or production manager, from each organization was interviewed face-to-face. Prior to these intensive interviews, the researchers had studied documents on the company and its teamwork system. During the interview, which usually lasted between two or three hours, the company representative together with the researchers completed an elaborate pre-structured questionnaire containing fifty-eight questions (some open, most of them closed but complex).

The study was designed as a comparative qualitative case study among twenty-seven organizations. The data provides a picture at a singular moment in time of the way these companies have organized team-based work and how they deal with training in their teams. Two groups of variables were constructed from the data set for this study:

1. Variables concerning the organization of work: for example, team responsibilities, co-ordination, consultation, and authority.
2. Variables concerning the organization and content of training in teams: for example, team participation in training, available learning activities, specific focus on training for team-based work, amount of training.

Analysis of the first two research questions involved frequency distributions for the main work and training variables, clustering of teams in terms of their organization of work, and clustering of teams in terms of their organization of training.

For the third research question the training clusters and variables were related to the work clusters and variables. Cramer's V was used to determine the relationship between the work clusters and the training clusters, with Monte Carlo sampling procedures to test the significance of this relationship. In order to test the relationship between the work variables and the training variables Kruskal-Wallis tests were used (test statistic H).

Results

The results section is structured along the three research questions. First, the organization of work in our sample will be presented. Second, the focus will be on training for team-based work. Third, we describe the outcomes concerning the relationship between work and training in teams.

The Organization of Work in Teams

Respondents were asked to what extent various actors were responsible for different team tasks. The various actors include team members, the team leader, and external actors (e.g., managers and organizational staff members

positioned outside the team). Their responsibilities concern three sets of team tasks related to the production process:

1. *Regulatory tasks:* taking care of technical, logistical, quality, and personnel issues.
2. *Authority tasks:* deciding about the flow of orders, means, and personnel.
3. *Standard-setting tasks:* setting team standards, both on the individual and team level.

Table 2 presents the results for this question. In our sample of twenty-seven cases, team members often have responsibility for performing regulatory tasks. In large majority, team members are responsible also for decisions about the order and personnel flows. The team leader has responsibility mostly for deciding on the order and personnel flows and for setting the team standards. Actors outside the team have responsibility mainly for the regulatory tasks of the team.

Table 2. *Responsibilities of the Various Actors in and outside the Teams (n = 27).*

	Actors		
Responsibility	Team Members	Team Leader	Outside of Team
For Regulatory Tasks			
Technical Issues	25 (93 %)	3 (11 %)	22 (81 %)
Logistical Issues	25 (93 %)	13 (48 %)	14 (52 %)
Quality Issues	25 (93 %)	11 (41 %)	18 (67 %)
Personnel Issues	21 (78 %)	8 (30 %)	19 (70 %)
For Authority Tasks			
Over Order Flow	24 (89 %)	14 (52 %)	21 (78 %)
Over Flow of Means	12 (44 %)	6 (22 %)	23 (85 %)
Over Personnel Flow	22 (81 %)	16 (59 %)	20 (74 %)
For Standard-Setting Tasks			
At Team Level	10 (37 %)	10 (37 %)	11 (41 %)
At Individual Level	6 (22 %)	13 (48 %)	5 (19 %)

Looking at the distribution of responsibilities among the various actors, most of the regulatory tasks are the responsibility of team members as well as actors outside the team. The team leader has some responsibility for logistical and quality affairs as well. In terms of responsibility for authority tasks, once again team members and actors outside the team are dominant. On average, however, outside actors have the largest responsibility for the flow of means. The team leader is responsible, to a moderate extent, for the order and personnel flows as well. Standard setting occurs in less than half of our sample. Responsibility for it is distributed evenly among the actors as far as the team level is concerned, but for the individual level it is mainly in the hands of the team leader.

For each of the twenty-seven companies, it was then determined to what extent team members, the team leader, and external actors were responsible for performing the main team tasks described in Table 2. Based on these data, four clusters of teams were distinguished that differ in terms of the division of work responsibilities among the various actors:

I. *Independent, self-directed work teams.* In these teams external actors have delegated responsibility for the main tasks to the team members, without making a team leader responsible. This cluster contains ten cases (37 per cent).
II. *Guided, self-directed work teams.* In this cluster both the team leader and members are responsible for the main tasks. Four cases from our sample fall into this category (15 per cent).
III. *Guided, partially self-directed work teams.* The team members and leader have responsibility for a number of tasks, however in this cluster their impact is limited by external actors. Two cases fit this description (8 per cent).
IV. *Externally directed work teams.* These teams are directed by external actors and have limited responsibility themselves for the main team tasks. This cluster contains eleven cases (41 per cent).

The Organization and Content of Training

This paragraph presents the data from our sample on team participation in training-related activities, types of training, specific focus on training for team-based work, and the amount of training.

Team Participation in Training-Related Activities. Respondents were asked to indicate the extent to which team members, the team leader, and external actors participate in three key training-related activities:

1. *Priorities:* establishing the priorities for team training.

2. *Needs:* determining the training needs for the team.
3. *Execution:* performing actual training activities.

Table 3 describes the results for this question. In most of the teams training issues are dealt with by team members themselves rather than by the team leader or by external actors. The latter do not participate in training-related activities at all in a majority of the cases. Team members have the largest impact when it comes to the execution of training. Both the team leader and outside actors have some involvement in establishing priorities and assessing training needs, but they play no role of importance in training execution.

Looking at the distribution of responsibility for training issues among the various actors, the execution of training seems to be a task mainly for the team members themselves (please note that no specific data are available about the participation of training professionals). Assessment of training needs and setting priorities for training occur less often, but can be the responsibility of any actor when they do take place.

Table 3. *Participation of the Various Actors in Training-Related Activities (n = 25; missing data = 2).*

	Actors		
Training-Related Activities	Team Members	Team Leader	Outside of Team
Priorities, Needs, and Execution	6 (24 %)	3 (12 %)	1 (4 %)
Priorities and Needs	0 (0 %)	4 (16 %)	6 (24 %)
Priorities Only	0 (0 %)	3 (12 %)	3 (12 %)
Needs and Execution	5 (20 %)	1 (4 %)	0 (0 %)
Execution Only	14 (56 %)	0 (0 %)	0 (0 %)
No Involvement in Training at All	0 (0 %)	16 (64 %)	17 (68 %)

For each of the twenty-five organizations, it was then determined to what extent team members, the team leader, and external actors participate in the three key training-related activities described in Table 3 (priorities, needs, and execution). Thus, a team participation pattern for training-related activities was determined in each case. Based on these data, three clusters were created that differ in terms of the way in which teams distribute the responsibility for training-related activities among the various actors:

I. *Teams with member-driven training.* In these teams the members themselves organize the main activities of establishing priorities for training, determining training needs, and executing training. The team leader and external actors are not involved in training. This cluster contains six cases (24 per cent).

II. *Teams with leader-driven training.* In this cluster the team leader sets the conditions (priorities and sometimes needs) for training. The team members are responsible for the execution of training, within the boundaries of that framework. In a few companies the team leader is involved in training execution as well. Ten cases from our sample fall into this category (40 per cent).

III. *Teams with externally driven training.* In these teams actors outside the team set the conditions (priorities and needs) for training. These external actors can be training professionals, personnel officers, and / or middle managers. The team members are involved only in the execution of training. Nine cases fit this description (36 per cent).

Types of Training: Organization and Content. Respondents were asked to indicate what part of team training is organized on and off the job, respectively. Table 4 shows these proportions for the teams in our sample. In only six cases (27 per cent) the proportion of off the job training (classroom based) exceeds one half. Fourteen companies (63 per cent) feature teams in which off the job activity constitutes just a small or moderate part of training. On the job training (in the workplace), on the other hand, represents a (very) large proportion of team training in thirteen cases (59 per cent), whereas only nine companies (41 per cent) report its proportion to be small or moderate. Roughly speaking, there is more on the job training in most teams than there is off the job training.

Combining the data on off and on the job training for each company, it is possible to determine whether the *organization* of team training is limited or multiple in character. Five companies (23 per cent) limit the organization of their team training mostly to off the job activities. In eleven cases (50 per cent) the organization of team training is limited mostly to on the job activities. A multiple organization of team training, combining on and off the job training in equal measures, can be found in six companies (27 per cent). Please note that no questions were asked about the proportion of non-formal or informal learning activities in the teams.

Table 4. *Proportions of Team Training Organized Off and On the Job (n = 22; missing data = 5).*

Proportion	Off the Job Training	On the Job Training
Very Small (< 10 per cent)	2 (9 %)	0 (0 %)
Small (10-20 per cent)	8 (36 %)	3 (14 %)
Moderate (21-49 per cent)	6 (27 %)	6 (27 %)
Large (50-69 per cent)	6 (27 %)	8 (36 %)
Very Large (> 70 per cent)	0 (0 %)	5 (23 %)

Respondents were asked also about the *content* of team training, specifically to what extent team members are trained in preparation for new jobs, both initially and additionally. This can be regarded as an indication of the extent to which the *content* of team training is narrow or broad in nature. As Table 5 shows, 40 per cent of the companies organize both initial and additional job preparation training for all team members, resulting in a broad content profile. In 25 per cent of the cases, only some team members receive both initial and additional job preparation training ('moderate'), while 20 per cent organize only initial OR only additional training for job preparation ('narrow'). Three companies (15 per cent) offer no job-related training at all, only about specific topics (e.g., management, communication, and so forth).

Table 5. *Content of Team Training: Broad or Narrow (n = 20; missing data = 7).*

Training Content	n
Broad (Initial and Additional Job Preparation for All)	8 (40 %)
Moderate (Initial and Additional Job Preparation for Some)	5 (25 %)
Narrow (Only Initial OR Only Additional Job Preparation)	4 (20 %)
Specific Only (Non-Job Related)	3 (15 %)

Specific Focus on Training for Team-Based Work. Table 6 describes the extent to which training in our sample is specifically focused on the implementation of team-based work. In more than half of the cases only a small proportion of training has this focus, whereas just one company (5 per cent) devotes a large part of its training specifically to team-based work issues. Apparently, the implementation of team-based work does not lead to much specific training for team members.

Table 6. *Proportion of Training Specifically Focusing on Team-Based Work (n = 21; missing data = 6).*

Proportion	n
Very Small (< 10 per cent)	3 (14 %)
Small (10-20 per cent)	12 (56 %)
Moderate (21-49 per cent)	5 (24 %)
Large (50-69 per cent)	1 (5 %)
Very Large (> 70 per cent)	0 (0 %)

Amount of Training. Respondents were asked how many days per year their employees spend on training. As Table 7 shows, in 41 per cent of the companies employees spend less than six days on training each year. Six to ten days of training per year is taking place in another 41 percent of the cases, while the rest of the sample (17 per cent) even exceeds the ten-days per year limit.

Table 7. *Number of Days per Year that Employees Spend on Training (n = 24; missing data = 3).*

Amount	n
Small (2-5 Days)	10 (41 %)
Moderate (6-10 Days)	10 (41 %)
Large (> 10 Days)	4 (17 %)

The Relationship between Work in Teams and their Training

In this paragraph the results concerning the relation between team-based work and team training are addressed. Table 8 juxtaposes the four types of teamwork (derived from Table 2) with the three training participation patterns for teams (derived from Table 3). As a reminder, the four teamwork clusters were established on the basis of the distribution of responsibilities for work tasks among the various actors. Likewise, the three training clusters are based on the division of responsibilities for training tasks among team members, team leader, and external actors. The correlation between the two types of clusters as expressed in Cramer's V is .32. The relationship, however, is not statistically significant. This means that the organization of work in teams, within our sample, is not related to the way these teams organize their training. Nor were statistically significant differences found between the four teamwork clusters with respect to the variables presented in Tables 3 through 8.

Table 8. *Four Team Types Related to Three Training Participation Patterns (n = 25; missing data = 2).*

	Training Participation Pattern			
Types of Work Team	I. Teams with Member-Driven Training	II. Teams with Leader-Driven Training	III. Teams with Externally Driven Training	*Total*
A. Independent, Self-Directed Work Teams	3	4	2	*9*
B. Guided, Self-Directed Work Teams	1	1	2	*4*
C. Guided, Partially Self-Directed Work Teams	0	2	0	*2*
D. Externally Directed Work Teams	2	3	5	*10*
Total	*6*	*10*	*9*	*25*

(Note: Cramer's V = .32 ; p = not significant)

Conclusions and Discussion

In this section conclusions are drawn about our three research questions and some points for discussion are raised.

How Is Team-Based Work Organized?

In our sample four types of teams can be distinguished. The largest cluster are the *externally directed* work teams, who have limited responsibilities for core team activities like performing regulatory tasks, authority tasks, and standard-setting tasks. Just behind in terms of numbers are the *independent, self-directed* work teams, where the team members have been delegated full responsibility for these tasks by managers and organizational staff members outside the team. Two smaller clusters emerged as well. First, in *guided, self-directed* work teams, the members themselves and the team leader share responsibility. Second, in *guided, partially self-directed* work teams, external actors share part of the responsibility for team tasks with the members and team leader.

It can be concluded that, even in our relatively small sample, quite a variety of different work teams can be found. This is a bit surprising, because for this survey no random sampling of companies was performed. Organizations were asked to participate if they were known to have implemented teamwork or to be well in the process of doing so. In view of this, the number of externally directed work teams in our sample is rather high. This finding is in line, however, with empirical studies by Benders (1999) and Dankbaar (2000), who concluded also that teamwork is not yet as widespread as often assumed.

How Is Training Organized in Work Teams?

Three training participation patterns were established in our sample, on the basis of the division of responsibilities for key team training activities like priority setting, needs assessment, and training execution. The largest cluster are teams with *leader-driven* training, meaning that the team leader sets the conditions (priorities and needs) and the team members are responsible for the execution of training. The second largest group are teams with *externally driven* training, where managers and (probably) training professionals outside the team set the conditions and the team are involved in executing the training. The smallest contingent are teams with *member-driven* training,

who are fully responsible for all their own training arrangements and see no participation in training by the team leader or external actors.

There appears to be more on the job training in our sample of teams than there is training off the job. Only a small number of companies organize multiple forms of training, with significant training arrangements in place both off and on the job. Training content can be labeled broad, on average, in that a substantial number of organizations (40 per cent) offer all their team members initial and additional job preparation training. Most companies dedicate only a small proportion of their training to specific team-based work issues. The general amount of training for employees is rather large, however, ranging from six to ten days or more per year in almost 60 per cent of our cases.

It can be concluded that there is a diversity of ways in which teams organize their training. As with the organization of work, however, team-driven training is less prominent than perhaps expected. The organization and content of team training show considerable variation, in many respects, across the cases in our sample. It is not very surprising that on the job training occurs more often than off the job training, nor that few companies pay a great deal of attention to specific training for team-based work. In this connection it is good to note, however, that the survey did not contain any questions about non-formal and informal learning in teams. One would expect these activities to take place rather frequently, certainly relative to formal training arrangements (Marsick & Watkins, 1990).

Are Teamwork and Team Training Related?

This is probably the key question in the current study, and it yields quite a surprising answer. In no way have we been able to establish a relationship between the organization of work in teams, on the one hand, and the organization of team training, on the other hand. The four types of teamwork that emerge are not related to the three training participation patterns that can be distinguished (cf. Table 8). To put it differently, the division of work responsibilities among team actors is not connected to the way in which team training responsibilities are distributed. Moreover, all other training variables in our study (cf. Table 9) show no significant relationships to the teamwork clusters, either. Even when training variables are correlated to work variables at item level, results of which are not presented in this paper, only a random pattern of 'statistically significant' (but theoretically irrelevant) relations comes up.

Although surprising in view of the idea that teamwork provides a better learning environment than traditional work systems (Ellström, 2001; Tjepkema, Kessels, & Smit, 1999; Onstenk, 2001), the findings are largely in line with the small number of other empirical studies on this topic. The high expectations concerning performance, opportunities for participation, member satisfaction and motivation in teams are not met in practice (Boot & Reynolds, 1997; Poutsma, 1998; Russ-Eft, Preskill, & Sleezer, 1997). What is more, the alleged learning potential of teamwork is only scarcely supported in empirical investigation (Van Klaveren & Tom, 1995; Hoogerwerf, 1998; Willis & Boverie, 1998).

Limitations of the Study

It has to be noted that the survey used for our secondary analysis did not contain any questions about non-formal or informal learning, only about on and off the job training. For a more comprehensive understanding of the relationship between teamwork and learning processes in teams it would be good to include such topics in future surveys.

Another limitation of this study lies in the fact that the main respondents were personnel and production managers only, who were asked mainly about the system of teamwork. In order to get an in-depth view of learning taking place in teams it would be good to interview team members, team leaders, and training professionals as well, and to ask more questions about actual learning processes that occur.

Implications of the Study and Contribution to New HRD Knowledge

Even taking into account its limitations, this study raises serious questions about the prevalence of teamwork as a context for learning. First, how come work in so many teams is other than self directed? Second, why are training priorities and needs assessment the responsibility of team members in so few cases? Third, and most interesting, what does it mean that the variation in team training is not related to the variation in teamwork?

One would expect, certainly following the ideas of Ellström (2001) about learning-intensive work systems, that self-directed teams would have different, if not better, training arrangements in place. For example, extensive participation of team members in training, a multiple organization of team training, a broad training content, specific training for team-based work, a large amount of training. But none of these occur more frequently in the self-directed teams within our sample. In fact we found no differences in training variables to be related to differences in the organization of teamwork. There is no evidence, from our study, that self-directed teams provide a better, or even

different, training context to their members than, for instance, externally directed teams do. The organization of work and the organization of learning, to a large extent, have their own dynamics. Going one step further, there would be little reason to justify the implementation of team-based work solely by claiming that the learning potential of work will improve. There may be other promising ways to put 'learning' high on the agenda of enterprises. In other words, we should be more careful to proclaim teams as *the* work type for future 'learning organizations'.

All this does not explain *why* the implementation of teamwork and the organization of team training are apparently unrelated. This may have to do with the fact that in team learning literature (e.g., Ellström, 2001; Onstenk, 2001) most attention is paid to the organization of work and to the structural conditions for collaboration and communication in teams. Relatively little is known as yet about the actual processes of ('informal') learning that takes place in work teams, about the viewpoints on learning of the team members themselves, about their perceptions of learning opportunities and blockages, about the practical strategies that they employ in order to learn what they deem necessary and how they see fit. Future research should focus also on these elements to provide a richer picture of team learning in companies.

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Collaboration in a Virtual Team Environment: A Case Study in Planning the ASTD/AHRD 2001 Future Search Conference

Gary L. May
Clayton College & State University

Teresa (Terry) J. Carter
Executive Learning Strategies, Inc.

Jennifer D. Dewey
North Central Regional Educational Laboratory (NCREL)

This case study explores the learning outcomes for the virtual team that planned the 2001 Future Search Conference for ASTD and AHRD. Team members completed the Global Process Team Questionnaire (GTPQ) and participated in interviews to determine effectiveness factors in team design, individual inputs, and process criteria. Results indicate that pre-existing relationships established trust in the virtual environment and supported the workload according to individual talents and interests.

Keywords: Virtual Teams, Collaborative Learning, Future Search Conference

This case study explores collaboration in a virtual team environment for the nine members who planned and organized the 2001 Future Search Conference that was sponsored by the American Society of Training and Development (ASTD) and the Academy of Human Resource Development (AHRD) in Orlando, Florida. A Future Search Conference is a large group strategic planning process that brings together key stakeholders in an attempt to get the "whole system" in the room to envision a desired future for a task of vital importance to an organization or community (Weisbord, 1992; Weisbord & Janoff, 2000).

In February 2001, the ASTD Research-to-Practice Committee, composed of a mix of practitioners, consultants, and academics, met to develop a conceptual outline for a Future Search conference to inform the HRD profession of the future of workplace learning and performance. The execution of the project was assigned to a team of volunteer ASTD members, dubbed the Future Search Steering Group (FSSG). This team, with the assistance of a Future Search facilitator, had four months to put together the conference without benefit of a face-to-face meeting. The conference was successful and currently serves as the foundation for continuing work within ASTD and AHRD. This case study describes the experiences of the FSSG team and provides useful lessons on collaboration in a virtual environment.

Problem Statement

Very little formal research has explored the effectiveness of virtual teams (Furst, Blackburn, & Rosen, 1999), even though trends towards globalization and enhancements in communication technology have made virtual teaming an integral part of most small group work (Katzenbach & Smith, 2001). Different time, space, and culture factors add to the complexity of collaboration in a virtual environment (Duarte & Snyder, 2001; Fisher & Fisher, 2001). In addition to these factors, the Future Search planning team was composed primarily of volunteers, an aspect of team participation that has received little or no attention in the research literature.

Theoretical Framework

There have been a number of theoretical frames applied to explain the functioning and effectiveness of teams, including *developmental stages* (Tuckman, 1965), *punctuated equilibrium* (Gersick, 1988), *social exchange theory* (Hollender, 1978), and *process structuration theory* (Giddens, 1984). One theoretical model, the *Ginnett's Team Effectiveness Leadership Model* or TELM (Ginnett, 1996; Hughes, Ginnett, & Curphy, 2002), has been developed specifically to examine the variables impacting team effectiveness in a business context. Figure 1 provides a diagram adapted from the TELM model.

Based on the work of Richard Hackman (1990) and refined through field research at the Center for Creative Leadership, the TELM model uses a general systems theory approach in the study of teams. In a simplified version

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of Ginnett's (1996) model, individual, team, and organizational factors identified as inputs to the system are displayed on the left in Figure 1. Process or throughputs (i.e. what one can tell about the team by actually observing the team members at work) occupy the center of the model; and outputs (i.e. how well the team did in accomplishing its objectives) are shown on the right side of the figure. In this model, team leadership establishes the vision (or "dream") for the work, guides the design function, and attends to development issues related to skills and process.

In this case study, we limit our focus on only those factors in the model that our experience can illuminate: two input factors (*team design* factors and *individual inputs*) and team *process* factors. These three areas are highlighted in bold in Figure 1 to illustrate the focus of our inquiry. The reasons for this limited focus are twofold. First, the organization inputs for a volunteer team of this nature were minimal. We had no organizationally sponsored control systems, including reward, education, or information systems other than international dialing access for teleconference calls. Five core members of the steering group and the Future Search facilitator who assisted them were geographically dispersed volunteers, including one member located in London; three other steering group members worked directly or indirectly for ASTD in the Washington, D. C. area. The six unpaid volunteers contributed more than two-thirds of the time, effort, and energy that resulted in a successful conference. Team leadership came from within the volunteer membership of the team and was not an organizationally assigned function.

Second, this is an exploration of process, individual, and team design factors that contribute to effectiveness rather than a study of team outcomes (the team "outputs" of the model). We take the effectiveness of the team to be an outcome achieved only in part, since the work of the Future Search conference is still ongoing. Conference attendees have been invited to participate in an extension of the dialogue that was begun in Orlando through online forums, and work is currently being undertaken to use the conference outcomes in the development of a book and other published materials. Instead, we focus here on factors that contributed to success in planning the Future Search conference in a virtual environment in which Email and teleconferences were our primary modes of communication.

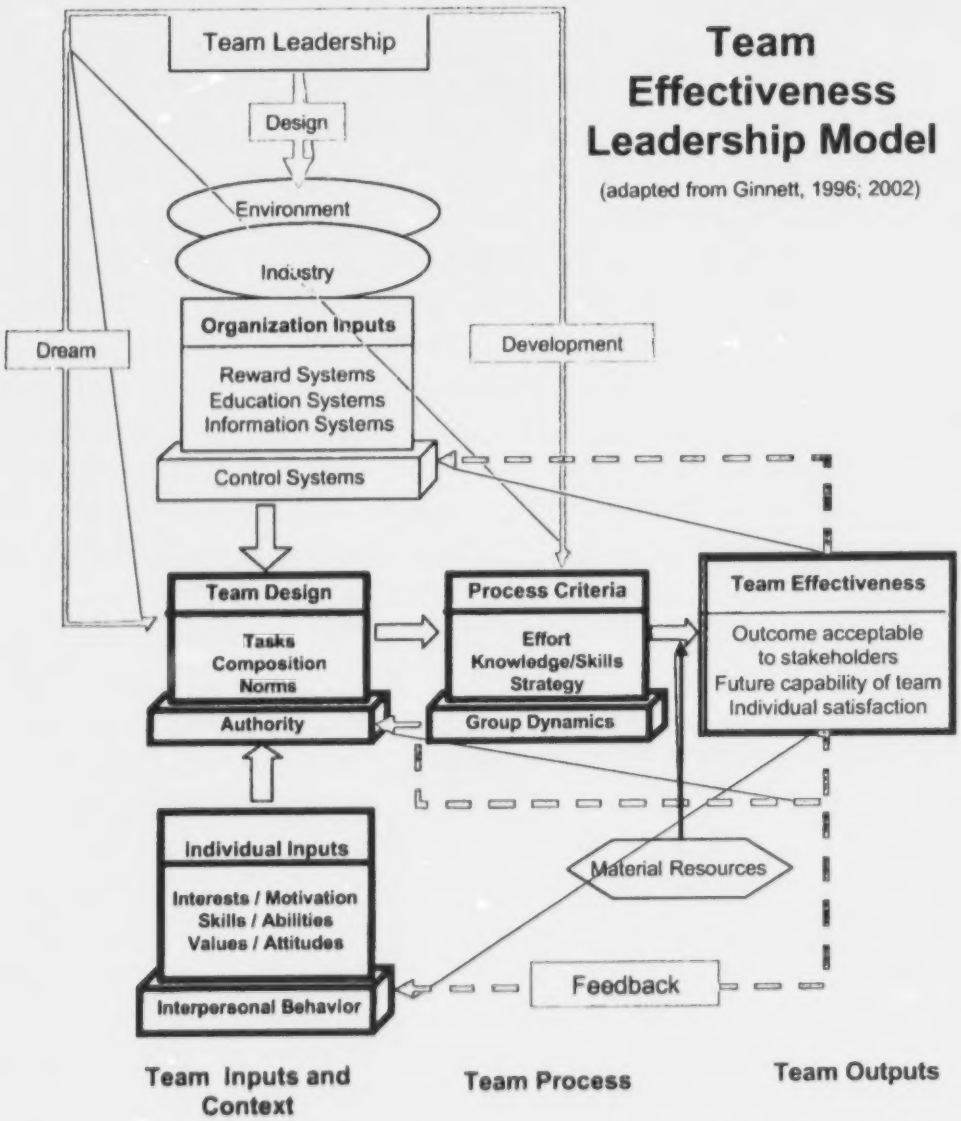
One role of case studies is to test theory (Yin, 1994). The purpose of this exploratory study was to compare and contrast the experiences of the Future Search Steering Group to specific aspects of the TELM, using the model as a theoretical guide. Our goal was to draw some prescriptive lessons that can be applied by volunteer groups working in a virtual environment in the future. The study was guided by the following research questions:

- How did the experiences of the Future Search Steering Group fit with the TELM?
- How did team design, individual inputs, and process factors contribute to team effectiveness?

Methodology

Most case studies rely on multiple methods of data collection to ensure validity and reliability (Creswell, 1998). Two types of data were collected from the nine members of the FSSG during two months that followed the conference planning. Telephone interviews, lasting approximately one hour, covered the following: (a) the process of what makes a virtual planning experience successful; (b) individual factors contributing to motivation and commitment to participate in virtual planning; (c) team design factors, including leadership aspects of virtual collaboration; and (d) perceptions of group-level (collective) learning processes. All interviews were conducted by the same researcher, one of the paper's authors. Each team member was asked 13 open-ended questions, followed by probing questions for clarification, when necessary. All conversations were taped and professionally transcribed, resulting in 75 single-space pages of data.

Figure 1. Team Effectiveness Leadership Model



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The FSSG members also completed ITAP International's Global Team Process Questionnaire (GTPQ), a diagnostic instrument designed to help teams improve their effectiveness and productivity (Bing, 2001). As with all teams who use the instrument, this version of the GTPQ was customized for use with the FSSG. The instrument consisted of 19 close-ended items assessing such factors as equality of work distribution, clarity of team objectives, group communications, trust, conflict resolution, and leadership. Each item included a section for additional comments. The GTPQ questionnaire has been thoroughly tested for reliability and validity with global teams in the pharmaceutical, consumer products, and information technology fields for more than five years. For purposes of the questionnaire, a global team is one with members located in more than one country or one that has members from more than one country temporarily working in the same location (Bing, 2001). Mean scores were obtained for the GTPQ close-ended items. Transcriptions of the taped telephone interviews and open-ended comments from the GTPQ were content analyzed for overriding themes by the paper co-authors.

Results and Findings

Four major themes emerged from the interviews and open-ended comments on the GTPQ within this virtual, geographically dispersed team: (a) the importance of energizing and highly effective leadership; (b) intrinsic rewards that motivated individuals; (c) the necessity of a trustful environment, and (d) specific "enabling" virtual communication techniques and protocols. These will be described and related to three aspects of the TELM: team design, individual input factors, and process criteria.

Team Design Factors

Team design factors relevant to the TELM model included a narrowly focused task (organize a Future Search conference with 64 key leaders in the field of HRD); a tight deadline (four months); and volunteer FSSG team membership from within ASTD's Research-to-Practice committee. The nine-member FSSG team was composed of five core members, one volunteer facilitator from outside the ranks of ASTD, two ASTD research officers in liaison roles, and one member in an ASTD administrative role. A clear line of "authority" in the form of team commitment to the success of the project for ASTD and AHRD existed, although the sponsoring organizations exerted little, if any, formal control mechanisms.

Of these design factors, the *volunteer composition* and the *energizing and shared leadership within the team* were credited with successful completion of the task. At first blush, the volunteer nature of the team appeared happenstance, with one member noting that "when we put the team together we gave no real consideration to the relative strength or the working styles of the individuals." However, interviews revealed subtle self-selection criteria among those who volunteered: (a) keen interest in an intellectually stimulating project; (b) desire to contribute to the field of HRD; and (c) desire to enhance working relationships with valued colleagues.

Team members reflected on what kept them going as the project grew in size and intensity, with some spending as much as 20 hours a week outside of their regular jobs at the peak of activity. Working with respected colleagues was a key factor: "I've been more motivated by the chance to work with [team members] than I have the thought of we're going to put a fantastic book out ... I get a lot from the relationships ... on the steering group."

This desire to work with "a finely tuned team of professionals" was, for many, a compelling reason to join the FSSG, but all acknowledged that what maintained the team's momentum was energizing and highly effective leadership, a role that was shared by several team members. Early on in the project, the member who had volunteered to lead the team began clustering various tasks into "blocks" of work; team members volunteered to spearhead a block of work and were called "blockheads," a term that was one of the group's many inside jokes. Dividing up the task and then monitoring the resulting progress became a coordinating leadership role that was essential to effective team management. Team members agreed, however, that leadership actions were dispersed, with the informal leadership role within the group assumed primarily by another member of the team. Instead of vying for competing roles, team members welcomed others' leadership efforts and attributed this to the volunteer nature of the team:

> [G]iven the nature of the project and the fact that we're all volunteers, I think you've got to have somebody who's pushing it forward all the time ... we each divide up the work and take on difference components but [team member A] invariably will jump in and do a little bit just to shove it along ... it always seems to be good stuff and it tends to make you think and keep pushing a little harder yourself.

Individual Factors

While *energizing and shared leadership* and the *volunteer nature of the team* were deemed essential team design factors, individual input factors also contributed heavily to successful task completion. The TELM model considers interpersonal behaviors as the foundation for individual inputs and a direct function of team members' interests, motivations, skills, abilities, values, and attitudes. For the members of this virtual team, individual factors provided *intrinsic rewards* and created a *trusting environment* that made success possible.

One of the GTPQ questions specifically asked about the equitable distribution of such intangibles as participation, project visibility, authorship of the book, and editorship of papers and conference articles--all motivational factors in the minds of team members. Most team members agreed that everyone had an opportunity to contribute in areas that interested them--"everyone gets a piece of the action"-- while one member noted "it's not an issue of trying to be greedy and hog all the glory (none of us has time for it!) ... [but] I think some of us have more visibility in certain areas ... this is a high-stakes issue because a book authorship is an extremely tangible professional accomplishment." Learning about the Future Search methodology (Weisbord, 1992; Weisbord & Janoff, 2000) and learning about teamwork in a virtual environment were motivating factors, as well:

> I've also learned how an ongoing virtual conversation ... can contribute to collective efforts that far exceed what any one individual can do ... this has been a tremendous learning, for my experience in face-to-face task forces and group efforts had led me to believe that a few people usually do all or most of the work. Here the work was truly shared according to each person's ability to contribute.

An attitude of respect for professional colleagues permeated the virtual experience for team members. Each had an opportunity to contribute his or her own special interests and talents, and each trusted that others would see their portion of the work through to completion. The ability to do high-quality individual work that was then brought back to the team for discussion was a repeatedly mentioned theme: "For a project of this complexity to work, you've got to have people on the team that can run with whatever their passion is ... for the team to disperse and people to be doing their thing and bring it back and let the team crunch on it."

Good written and oral communication skills proved essential in a virtual conversation. Clearly, members realized that it was important that they make allowances for different modes of individual expression and create what one called an attitude of "slack": "There's something around creating slack ...Giving people the benefit of the doubt when they appear to be on your territory or saying something that's negative." Thus, motivated by an opportunity to work with respected colleagues, to share in tangible outcomes according to each team member's interests and abilities, and to learn from one another created the necessary trust for virtual collaboration.

Process Criteria

In addition to team design and individual inputs, our lessons learned came from many process factors, some of which we stumbled into and others that we created intentionally. The TELM model considers process criteria to be the effort expended, the knowledge and skills brought to bear, the planned strategy or techniques adopted, and the group dynamics that emerge from collective action.

Pre-existing relationships among the Research-to-Practice committee members that had been established in a face-to-face environment proved essential to commitment in a virtual one. Telephone conferences added the emotion of tone and voice to messages exchanged electronically, and, most importantly, humor created and sustained a shared group culture that grew through the weeks of conference preparation. One member referred to the "lubricant of a keen sense of humor" and noted that it was hard to get tense in a flurry of metaphors and one-liners. "I think the teleconferences ... help glue things together for us. They re-establish ...you can hear the chuckle that goes with the joke." Without the pre-existing relationships, most doubted that the team would have been able to collaborate so easily and with such clarity.

All acknowledged that more was shared in this team culture than the occasional humorous remark that lightened the workload: Each team member's commitment to the task and to the other members functioned to prop up the group as a whole and maintained a "high level of intensity" without a long lag time between virtual meetings or E-mail exchanges. Emails were characterized as "rapid fire." No sooner did a message go out than a flurry of responses picked up the dialogue exchange. While conducive to capturing the flavor of real-time conversation, this also proved disconcerting at times for our London colleague:

> Every now and then I'd go to bed at ten o'clock which is five Eastern [time] having checked all my E-mails and being up to date and while I'm asleep dialogue is taking place in North America ... And I wake up the following morning ... and see that the dialogue has changed quite drastically as a result of ten different E-mails going back and forth ... I sit there and say, "I've missed this. I feel like I've got to take them back a step in order to say what I would have said..."

It was in this process area that we also recognized our most serious shortfalls. In the world of virtual teams, we were decidedly low-tech, relying heavily on E-mail and teleconferences as our primary communication mechanisms. In retrospect, all acknowledged that we could have benefited greatly by using an electronic bulletin board or some form of virtual collaboration software, such as WebEx® that provides chat rooms for synchronous conversations. The deluge of E-mail traffic was overwhelming at times: "It was tough to stay on top of them. If you took a few days off and didn't have E-mail access and you suddenly came back, you were 30 to 60 E-mails behind."

Many of the process techniques we adopted became enabling structures and protocols that evolved over time as we worked together in a virtual environment. We discovered that a pre-set agenda, sent out by E-mail the day before a teleconference, was essential to effective time management. Not only did it allow the blockheads to summarize their work ahead of time for all to read in advance, but also team members were able to pose questions for the group to consider before a scheduled call. This process allowed us to tackle a sizable number of items in an hour and a half teleconference and come to resolution on them. Dates and times for the calls were set after posing alternatives and letting the group decide on those most convenient for everyone, as opposed to a time that was established by team leadership. Teleconference calls were also planned well in advance for scheduling purposes. During the call, the formal team leader kept notes on actions agreed upon during the call, placing them right into the text of the agenda in bold highlighted text. Within minutes after completion of a teleconference, the team leader sent out a revised copy of the agenda by E-mail with the actions agreed upon highlighted. This allowed anyone who missed a call to be quickly brought up to date.

Overall, team members credit ad e organization, pre-planned and electronically distributed agendas, follow-up agendas annotated with action item nt immediately after a teleconference and a lively and active interchange of E-mail dialogue as processes that e ed them to reach their goals. These enabling protocols, however, were only mechanical processes. Individual at butes, skills and abilities, shared commitment, and desire to contribute to the field provided the relational processes of virtual collaboration, and they proved to be as essential as any mechanical techniques.

Discussion

When we examine our first research question about how our experiences in virtual collaboration compare with the TELM model of team effectiveness (Ginnett, 1996; Hughes et al., 1999), we find that the three elements of team design, individual inputs, and process criteria were all essential to successful task completion. Each element functioned similarly to the model's basic design: individual inputs contributed to team design, which, in turn, affected the process criteria of effort, knowledge, skills, and strategy. These process criteria were supported by highly effective group dynamics within the team.

In contrast to the model were our experiences in organizational input factors. As a volunteer group, we came from many different organizations within both public and private sectors, and we were largely a self-directed and self-supported team. The TELM control system factors, such as reward systems, educational, and informational systems that comprise the usual organizational inputs, were missing from our collective experiences. However, we all understood that ASTD and AHRD had specific expectations for sponsoring the Future Search Conference and we acknowledged collective responsibility for delivering results that would be deemed worthwhile. In addition, ASTD provided the funds to support the conference and the administrative resources to ensure its logistical success. One of our team's members was heavily involved in administrative staff support on behalf of ASTD and two others provided key roles as ASTD research officers. Without their sponsorship, the team would not have been able to function as effectively as it did to ensure a successful conference outcome.

Our second research question asked about the respective contributions of team design, individual inputs, and process factors to team effectiveness. Among team design factors, we found that a clearly defined task with a short time frame for task completion and a high stakes outcome created compelling momentum for this virtual team. Volunteer membership permitted self-selection based on individual interests, motivations, and personal desires for professional recognition and contributions. Norms, developed through membership in ASTD's Research-to-Practice committee, already existed, and we were able to build on them, creating a shared vocabulary that formed the basis

for many humorous exchanges that lightened the workload and alleviated tension. This, in turn, sustained a healthy team culture.

The most important of individual inputs that contributed to effectiveness were team members' *shared motivations* to participate in the effort. Collectively, we were motivated by opportunities to work with respected colleagues, to enhance academic publishing in a variety of forums (e.g., book chapter authorship, conference presentations), and to contribute to the field of HRD in a meaningful way. We believe that the importance of shared motivations in accomplishing our task cannot be under-estimated. Shared motivations created a powerful synergy among team members and encouraged individuals to contribute specific skills and abilities, including leadership talents. They formed the basis of a trusting team environment.

Among the process criteria that contributed to our effectiveness as a team, we believe that the combination of individual talents, knowledge, and skills resulted in a team culture with well-established, effective group dynamics. Team leadership was an important aspect of our group dynamics. With *prior knowledge* of the specific strengths and potential contributions from various members, team leadership (both formal and informal) designed strategy to utilize team member strengths fully. Shared leadership was also effective in dispersing effort among team members, so that no one individual carried the whole load.

Conclusions and Recommendations

When Future Search methodology was adopted for strategic planning to explore the future of workplace learning and performance, volunteers in ASTD's Research-to-Practice committee had little virtual team experience in collaboration. The tight four-month time frame for organizing the conference meant that team members had to jump into the process without much pre-planning. We used the tools that each of us had readily accessible: electronic communication via E-mail and the telephone for conference calls.

Instead of the organizational reward systems typically used to enhance motivation and encourage productivity, we had our own personal interests and the support of two professional organizations that we were all committed to seeing successful in their endeavors. We saw the Future Search planning project as an opportunity to work with respected colleagues, to enhance professional relationships, to involve ourselves in an intellectually exciting learning endeavor, and to collaborate in publishing conference outcomes. These individual factors proved to be powerful motivators. They shaped the team design as a configuration of equals and gave rise to our collaborative processes. As a result, we spent more than 1,300 hours outside of our regular jobs to accomplish our task, often working late at night or early in the morning. We exchanged more than 2,000 E-mails and gobbled up more than 17 megabytes of hard drive space on each of nine computers. We experienced the frustration of a barrage of E-mail traffic that often appeared when we had the least amount of time to deal with it. With the completion of the conference event, our work was deemed successful by our sponsoring organizations. It continues to provide the organizing framework for ASTD and AHRD efforts to shape the future of workplace learning and performance.

What would we do differently next time? Certainly, more sophisticated tools for virtual collaboration exist; we regret that we did not pursue them early in our organizing processes, for they would have undoubtedly enhanced the online nature of our dialogue, saved hard drive space, and avoided E-mail overload.

What would we recommend repeating in future virtual collaborations? Volunteer membership, strong and respected leadership dispersed among team members, shared personal motivations for success, and organizing techniques such as pre-planned agendas and post-conference call summaries. Most importantly, our first-hand personal knowledge of each other allowed us to build upon our relationships when relying on virtual methods.

Contribution to New Knowledge in HRD

In an increasingly global world, organizations are likely to use advanced communication techniques to create groups that work in virtual time and space. This case study provides evidence that, in spite of today's technologically sophisticated means for virtual collaboration, human relationships are essential for effectiveness in a geographically dispersed team. Face-to-face relationships sustained our diversity in experiences, perspectives, and written and oral communication styles. Organizations need to consider how to provide a time and place to establish such relationships, or, conversely, how to take advantage of existing interpersonal relationships when establishing virtual teams. Our experience has taught us that relationships among virtual team members are essential for successful outcomes.

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Learning at the Top: An Investigation of Nonprofit CEOs' Learning Experiences

John J. Sherlock
University of Maryland University College

This study explored the learning experiences of nonprofit CEOs. Mezirow's theory of adult learning was used as a framework of inquiry. While the CEO's "professional context" is considered unique from other executive positions, it was unclear how that unique context might impact CEOs' learning. The findings suggest that both the content and the processes of CEO learning are impacted in profound ways by the politically-charged context in which the nonprofit CEO must perform.

Keywords: CEOs, Nonprofit Context, Adult Learning

Executives in organizations are striving to help their organizations succeed amidst increased competition, rapid change, and increased environmental ambiguity (Kotter, 1988; Vaill, 1996). A characteristic identified in the research of executives who prosper during challenging times is the ability to learn from experience (Bennis & Nanus, 1985; Dechant, 1990; Hall, 1986; Kaplan, Drath, & Kofodimos, 1987; Kolb, 1976; McCall & Lombardo, 1983). These studies, however, have focused primarily on senior executives, not the CEO. Yet, there is considerable support for the assertion that an organization's chief executive (CEO) plays a key and unique role in an organization's success (Bennis & Nanus, 1985; Burns, 1978; Jaques & Clement, 1991; Kaplan et al., 1987; Yukl, 1999). Further, several researchers have found that CEOs' ongoing learning is important to their success and their organizations (Bennis & Nanus, 1985; Goldsmith, 1996; Margerison & Kakabadse, 1984; Pincus & DeBonis, 1994; Senge, 1990).

This lack of understanding of how CEOs learn has negative workplace implications for both CEOs and the organizations they serve. It produces an information void for both the CEO seeking self-development, as well as executive development practitioners who seek to facilitate CEO development in both current CEOs and potential successors. This paper describes research that explored the learning experiences of nonprofit CEOs incorporating an adult learning theory as a framework of inquiry. The next section begins by reviewing the literature addressing the uniqueness of the CEO context , as well as particular aspects of the nonprofit CEO context. The section concludes with a description of Mezirow's adult learning theory.

Uniqueness of the CEO Context

"Professional context" was operationalized for this study to mean serving as CEO in a nonprofit association. An individual's professional context is an important dimension of one's overall context, defined in the adult learning research as the personal and sociocultural factors that play an influencing role in the process of learning (Clark & Wilson, 1991; Sveinunggaard, 1993; Taylor, 1997). Serving as CEO in an organization, it is asserted, constitutes a professional context that is unique from serving in any other executive capacity. The CEO, as the highest ranking staff member in an organization, has the highest level of staff accountability for achieving organizational goals. Additionally, while non-CEO executives often have significant responsibilities in an organization, non-CEO positions do not match the breadth of the CEO position (Pincus & DeBonis, 1994; Sonnenfeld, 1988; Yukl, 1999). The uniqueness of the CEO's responsibility and accountability for the organization's performance produces unique power dynamics between: 1) The CEO and the staff reporting to him/her; and 2) The CEO and the Board of Directors to whom the CEO reports.

CEO-Staff Power Dynamic. As the highest-ranking individual in an organization, the CEO operates in a professional context where the power associated with their position influences the majority of their interactions with staff. Power is defined for the purposes of this study as the capacity to affect organizational outcomes (Mintzberg, 1983). Daily & Johnson (1997) assert that while top management teams clearly have organizational influence, the CEO "occupies a position of unique influence in the firm" (p.98). Mintzberg (1983) draws a similar conclusion in stating that while managers who report directly to the CEO may be the second most powerful influences in the organization, they are a "distant second" (p.126). When the CEO talks, employees have good reason to listen. Even the CEO who has little interest in exercising power cannot avoid the power issues inherent in the CEO

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position. The result of the CEO possessing this degree of power is that it has real or perceived effects on the CEO-staff relationship and creates a unique context in which the CEO must learn how to perform.

CEO-Board Power Dynamic. A CEO's unique context is perhaps most exemplified in the reporting relationship to the board. Prior to becoming a CEO, the senior executive typically reports to a single supervisor who is an employee of the organization. In sharp contrast, the CEO reports to a board of directors made up of individuals who are generally not employees of the organization. The concept of a governing board is used in almost all complex organizations, from welfare agencies and private schools, to hospitals and for-profit and nonprofit organizations (Mintzberg, 1983). While the board generally has the authority to remove a CEO, whether that occurs is often a function of influence, relationships, perceptions about performance, and political action (Alexander, Fennell, & Halpern, 1993; Fredrickson, Hambrick, & Baumrin, 1988; Weisbach, 1988).

The CEOs in this study were all CEOs of nonprofit associations. While nonprofit association structures are like many for-profit organizations where the CEO reports to a board of directors representing the "owners," the limited research in this field suggests that the power dynamics between the nonprofit CEO and his/her board is even more intense (Mintzberg, 1983; Wood, 1996; Zald, 1965). Nonprofit associations, characterized by ever-changing volunteer board members and the lack of a primary profit motive like for-profit entities, often have decisions being guided by politics and personalities. How CEOs perceive and describe their learning experiences in this unique context was the purpose of this phenomenological study.

Mezirow's Theory of Adult Learning and Context

Mezirow's (1981) theory of adult learning was used as a framework of inquiry to explore the CEO learning phenomenon from an adult learning perspective. Mezirow's adult learning theory focuses on construing meaning from experience as a guide to action. His concepts of learning are unique when compared to other theories of adult learning due, in part, to the complexity, multiple levels of learning, and integrated system of knowledge presented (Clark & Wilson, 1991). Below is a brief description of the key concepts of his theory.

Ways of Making Meaning. Mezirow describes learning as occurring within two domains: The meaning scheme and the meaning perspective. Meaning schemes are particular beliefs, value judgments, and attitudes. They are a more specific dimension of one's broader frame of reference or meaning perspective. A meaning perspective is comprised of clusters of meaning schemes. A meaning perspective is a broad frame of reference adults use to make meaning of the world and does not change often. Mezirow refers to a change in meaning perspective as a perspective transformation. Mezirow distinguishes between learning to manipulate the environment ("instrumental learning") and learning to understand what others mean ("communicative learning"). He points out that adult learning often involves both instrumental and communicative learning types of learning.

Role of Reflection. Mezirow regards reflection as an essential element of his adult learning theory. He emphasizes that individuals must critically reflect on the premises of their beliefs as part of the process to validate, modify, or transform them. For Mezirow, all reflection should involve a critique. Mezirow states that reflection is not the same as introspection. He argues that introspection refers to simply becoming aware of the fact that we are perceiving, thinking, feeling, or acting in a certain way. Reflection by an individual, Mezirow asserts, goes beyond awareness and involves a critique of assumptions to determine whether a belief, often acquired through cultural assimilation in childhood, remains functional for the individual as an adult. He adds that most reflection occurs during problem solving and that the most powerful learning occurs when adults reflect not on the content of the problem or the process involved in solving it, but on the premise underlying the problem.

Role of Discourse. His theory of adult learning also emphasizes the importance of discourse to making meaning. Mezirow's thinking on the rational discourse is based in part on the notion of rationality of Habermas (1971). Mezirow (1991) describes Habermas' thinking about rationality as the "the process of achieving mutual understanding by active participation in advancing and objectively weighing evidence and assessing the cogency of supporting arguments" (p.26). Mezirow's concept of rational discourse has a number of ideal conditions, including that participants have accurate and complete information, are free from coercion, are open to alternative points of view, and are willing to accept a resulting best judgment. His emphasis on rationality in discourse has been criticized (Clark & Wilson, 1991; Cranton, 1994) for pursuing what is unattainable and for not acknowledging other ways of reaching understanding. Mezirow acknowledges that such conditions are difficult to attain but maintains that they are the conditions under which learning can best occur.

Role of Context. Mezirow asserts that learning can only be understood as situated in a specific cultural context. However, researchers of Mezirow's theory have suggested that the role of contextual factors in Mezirow's theory be explored further (Clark & Wilson, 1991; Taylor, 1997). This study, thus, not only provided a useful framework of inquiry into the phenomenon of CEO learning, but also served to develop further the role of context in Mezirow's theory.

Research Question

Using Mezirow's theory of adult learning as a framework for inquiry, how do CEOs perceive and describe their learning experiences?

Method

This study employed a phenomenological research design to explore how CEOs perceive and describe their learning in the CEO context. There are various techniques and variations of method within phenomenology, but all the approaches have certain commonalties (Sanders, 1982). They all are based on the premise that, for any phenomenon, there is a common underlying structure or "essence" which can be explicated fom individual descriptions of those experiencing the phenomenon (Creswell, 1998).

Data Collection. This study utilized Seidman's (1998) in-depth interview method as the primary data collection technique. Seidman's philosophy regarding interviewing is phenomenological in its orientation and consistent with this study's approach. Perhaps most distinguishing of all its features, Seidman's interviewing model involves conducting a series of three separate ninety-minute interviews with each participant. The initial interview created a historical context of the participants' learning experiences through reconstructing and describing past learning experiences up to becoming a CEO. The second interview allowed the participants to reflect on their learning experiences as CEO. The third interview was structured to allow participants the opportunity to reflect on the meaning of their learning experiences and to consider the implications of those meanings. During this third interview, CEOs were invited to reflect further on the differences between their CEO and pre-CEO learning experiences and the perceived influence of the CEO professional context on their learning. Seidman's (1998) suggestion that phenomenological interviewers use primarily open-ended questions was followed in this study. All interviews were audio taped and transcribed verbatim. Nearly 3,000 pages of interview transcripts were generated.

Sample. This study included a sample of twelve CEOs of nonprofit associations. Despite the significant economic impact of associations nationwide, little formal research has been conducted on association executive learning. The researchers' knowledge of and work experience with nonprofits was helpful in overcoming the typical challenges associated with gaining research access to "business elites" who serve as CEOs of their associations (Dexter, 1970). The sample was limited to individuals who had been CEOs of associations for no less than two years but no longer than seven years. These parameters on CEO experience were chosen based on comments from an expert sampling of CEOs who suggested that the time span of 27 years would be appropriate, from the perspective of both sufficient time in the job to be "settled" and recent enough CEO experience to be recalled. The final sample included eight men and four women, one of whom was a minority. This mix of gender and ethnicity closely reflects the association CEO gender and ethnic profile within the United States (ASAE, 1997).

Data Analysis. Because the research question invites analysis in two domains, executive development and adult learning, two sets of data analyses were utilized to promote the clearest understanding of the phenomenon. First, the study examined the influence of professional context on CEO learning experiences using Mezirow's (1991) theory of adult learning as a framework of inquiry. Coding and thematic analysis techniques (Patton, 1990) were used to analyze the influence of the CEOs' unique professional context on key dimensions of Mezirow's learning theory. Then, employing an inductive approach, the researcher used Moustakas' (1994) method of analysis of phenomenological data to develop a composite textural-structural description, or "essence," of the learning experiences of the twelve CEOs studied. The method places an emphasis on the researcher first reflecting on their own experience with the phenomenon and striving to bracket out any biases (referred to as the "epoche" process) prior to analysis of participants' data. Following the epoche process, the researcher engaged in the following phenomenological data analysis steps:

1. Considered each statement in a CEO Participant's interview transcript with respect to significance for the description of the phenomenon of nonprofit CEO learning (i.e., "horizonalization").

2. Formulated "invariant meaning horizons" by explicating the meaning of relevant statements. These invariant horizons point to the unique qualities of the CEO learning experience.
3. Related and clustered the invariant meaning horizons into themes of CEO learning.
4. Synthesized the invariant meaning horizons and themes of CEO learning into descriptions of the "textures" of the learning experiences for the CEO participants. The textural description ("noema") is often referred to as the "what" of the phenomenon.
5. Through phenomenological techniques of "imaginative variation," constructed the structural descriptions of the experience. The structural description ("noesis") is often referred to as the "how" of the phenomenon.
6. From the textural and structural descriptions of the participants' learning experiences, constructed a composite textural-structural description of the meanings and essences of CEO learning. This step integrates all of the other steps in the phenomenological process to produce a universal description ("essence") of the learning experiences representing the group of CEOs as a whole.

This use of two analysis types made it possible to add to our understanding of the two theoretical areas of adult learning and executive development.

Limitations. This study was based on a small sample of nonprofit association CEOs, and, therefore, the scope of the study is limited and may not be transferable. Further, the study is limited in that it relies on the willingness and ability of the participants to discuss their personal learning experiences. Efforts were made to address this limitation by conducting three ninety minute interviews, which provided considerable face-to-face time to establish not only rapport, but also a high level of comfort with the researcher and the subject matter being discussed.

Trustworthiness. Lincoln & Guba (1985) assert that the qualitative researcher can enhance the trustworthiness of the study within the process of inquiry itself. This includes researcher actions to produce "prolonged engagement" and "persistent observation" so that the most relevant factors become apparent. Seidman's (1998) in-depth phenomenological interview method, involving three separate ninety-minute in-person interviews, provided the researcher with the opportunity for both prolonged engagement and persistent observation. Moustakas (1994) also suggests enhancing trustworthiness by utilizing participant-feedback. This procedure involves the researcher sending to participants copies of the textural-structural descriptions of their experience and the group's experience as a means of validating the data. The twelve CEOs in this study each received the textural-structural description of their individual learning experiences, as well as the synthesis description of CEO learning, and were asked for any corrections or additions. This approach is also consistent with the suggestion of "member checking" suggested by Lincoln & Guba (1985 p.313-314).

Findings and Discussion

The results of this study are presented in two parts: 1) The findings of the thematic analysis using Mezirow's theory of adult learning; and 2) The findings of the phenomenological data analysis.

Thematic Analysis using Mezirow's Theory

Nine themes emerged from the data analysis using Mezirow's theory of adult learning as a framework of inquiry. Each theme is briefly discussed.

Theme One. Power Dynamics Permeate the CEOs' Environment. This theme has two distinct parts, reflecting the two primary CEO relationships: 1) The CEO-Staff power dynamic; and 2) The CEO-Board power dynamic. Underlying both of these relationships was the CEOs' strong sense of vulnerability and a belief that there are many constituencies to please. Two critical elements of Mezirow's theory, discourse and communicative learning (a type of learning), are directly influenced by these power imbalances with the staff and board. In order for discourse to occur, Mezirow (1991) asserts there must be "free and open exchange" and equal power, yet it is clear that neither is present within the context of CEO relationships at work. Additionally, communicative learning involves learning to understand what other people really mean. With the "cleaned" language phenomenon so prevalent in the CEOs' interactions ("political correctness"), communicative learning is clearly impacted.

Theme Two. Learning How to Navigate the Political Process. The CEOs' recognition that they had so many, often conflicting, expectations placed on them resulted in a focused effort to figure out how to manage the political processes to their advantage. Consistent with Mezirow's theory of adult learning, evidences of both instrumental and communicative learning were apparent in the CEOs' descriptions of their learning about how to navigate the political processes inherent in the CEO position.

Theme Three. Learning About Self. Mezirow (1981) has suggested that the most profound learning often involves learning about one's identity and self-concept. He makes the point that such learning often occurs while trying to learn about something else. The CEO environment, with its continuous pressure on the CEOs to meet the boards' often-subjective expectations, tested the self-confidence of the CEOs and triggered self-reflection and learning about self.

Theme Four. Reflection a More Prevalent Learning Process. The CEOs in the study indicated that reflection had become a more prevalent learning process for them since being a CEO. The lack of opportunities for CEOs to have meaningful discourse clearly contributed to the increased use of reflection; however, it is also the CEOs' feeling of vulnerability with the board that triggers the CEOs' frequent reflection on their performance. It is unclear whether any of the ways in which the CEOs' described that they reflect constitute "critical reflection" as Mezirow's learning theory asserts is necessary. The reflective process described by CEOs seemed to be less of a critique of assumptions, as Mezirow suggests, and more of a mental replaying of events in hopes of improved future performance.

Theme Five. Learning More Difficult in the CEO Role. The majority of CEOs commented that they found learning in the CEO role to be harder than in pre-CEO positions. The challenges nonprofit association CEOs face often involve people and relationships, with no one right answer and a lack of people with whom to discuss the challenges. The CEOs' perception that this contributes to learning being more difficult is consistent with Mezirow's (1981) assertion that learning to understand what other people mean (communicative knowledge) can be particularly difficult because of the lack of empirical methods to determine truth.

Theme Six. Discourse More Difficult in the CEO Role. As was noted in the earlier themes, CEOs felt that having productive discourse was more difficult to attain in the CEO position than when they were in non-CEO positions. The power dynamic between the CEOs and both their staff and their board acted as a significant impediment to discourse in the minds of the CEOs in the study. The discourse the CEOs in the study did seek out, however, was discourse with their spouses.

Theme Seven. Spouse as Resource for Discourse and Learning. Mezirow (1994) describes learning as a social process. He asserts that meaning made by an individual must be validated through discourse with others. Overall, the comments suggest that the spouse was a valued resource in part because they provided a "safe" environment where the CEO could think through issues without undesirable consequences. The findings also suggest, however, that this CEO-spouse discourse does not meet the conditions for "rational discourse" that Mezirow asserts is necessary for learning as defined by his theory.

Theme Eight. Triggering Events Often Mistakes or Adversity. Mezirow (1994) suggests that the triggering events that produce the most learning are often emotionally unpleasant and even painful. This study's findings suggest the CEO context provides fertile ground for such triggers. CEOs perceive that the context in which they operate is one of intense political pressure, where there are no guaranteed formulas for success, and where a CEO's action on a given item may please a group of board members but displease another group. The CEOs, when asked about how they most often learned, mentioned making mistakes, and then learning from those mistakes.

Theme Nine. Degree of Change Varied among CEOs. Mezirow (1991) indicates that individuals rarely transform their "meaning perspectives" and that most learning occurs by through validating or expanding existing "meaning schemes." The data suggests that some CEOs experienced learning at the "schema" level, while others described learning that could represent changes in meaning perspectives. The most transformative learning experiences described focused on learning about self.

Phenomenological Data Analysis

The product of this study's phenomenological data analysis is the textural-structural description or "essence" of the phenomenon of nonprofit association CEO learning. That description was developed within the phenomenological tradition by systematically building on the findings from each step of phenomenological data analysis summarized earlier. The process required a careful working through and imaginative testing of various descriptions of an essence until the essential elements and their relationship were differentiated from the unessential and particular (Polkinghorne, 1989). The twelve CEOs in this study each received the textural-structural description, or "essence," of the phenomenon of CEO learning as explicated from the group of twelve CEOs. The comments received from the CEOs supported the textural-structural synthesis of CEO learning developed.

Textural-Structural Synthesis("Essence"): CEO Learning Experiences. Nonprofit association CEOs' learning experiences are shaped by power dynamics that permeate fundamental dimensions of their job environment. These dynamics drive to a large extent both "what" they learn and "how" they learn. CEOs learn that the power they have

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over the staff is inescapable. They learn through reflecting on experience the limits in establishing "peer" relationships with staff. Once these limits are learned by the CEOs, the CEOs turn their learning focus to how to manage this power. They learn to be more calculated with their words and actions to minimize being misinterpreted by staff, as well as to create an environment where they are not being told what staff thinks the CEO wants to hear.

Association CEOs learn that the CEO role produces an intense feeling of responsibility and accountability. This personal learning also includes varying levels of vulnerability as CEOs learn that working with, but also "reporting to," a frequently changing board of volunteers is a socio-political challenge beyond what they had anticipated. This learning usually occurs through trial and error experiences with individual board members and the collective board. The CEOs learn that they are the point person responsible for meeting, or at minimum, managing, the multiple self-interests of these many "bosses"— in addition to achieving the stated association interests. The power of the board to remove the CEO is ever present in the mind of these association CEOs. This learning focus on the board is ongoing as positions of power change in the association and new board members are elected. The CEOs' learning becomes focused on achieving desired outcomes while avoiding "excessive vulnerability." This involves learning, primarily through listening and observation, to understand the actual, not prescribed, decision-making process of the board. It also involves learning to understand individual board members' needs and desires and their individual power within the group, as well as learning how to influence both the people and the process to achieve desired outcomes. This learning occurs primarily through trial and error and reflecting on those experiences.

CEOs utilize reflection for learning more than in other positions. Due to the particular power dynamics that exist with the staff and the board, CEOs learn that the CEO role often produces feelings of isolation and loneliness. The absence of "peers" with whom to have candid dialogue makes reflection a more common learning practice. Additionally, CEOs perceive the issues they must address with the staff, the board, and their marketplace to be broader and more complex than other jobs which requires reflection in order to learn. The CEOs with spouses have learned to appreciate and to leverage their spouses as safe and valuable resources for dialogue and reflection.

CEOs view learning as important to success. They view the learning needed to succeed in the CEO role to be much more focused on people than facts. They have learned that this is often harder learning and that they must seek out their own learning. Learning in the CEO role also includes unplanned learning about self, particularly about their personal values. While books, seminars, and networking can occasionally be helpful in the learning process to CEOs, trial and error with real experience is where the learning predominantly occurs.

Implications for HRD Research and Practice

While organizations spend millions of dollars annually on executive development, the focus is almost exclusively on managers and non-CEO executives. The CEO is basically on his/her own in regard to their development (Horton, 1992). This study's focus, specifically on CEOs, helped to inform the field of HRD from both a theoretical and practical perspective about how CEOs learn within the professional context of being their organization's chief executive. Given the study's interest in exploring executive development from an adult learning perspective, employing a comprehensive learning theory such as Mezirow's served this research purpose effectively. Below is a brief discussion of the implications for both HRD research and practice.

Implications for HRD Research. The influence of the CEO context so strongly influences the CEOs' learning experiences that the managerial and executive learning research provides little insight on the learning of CEOs. This conclusion about the profound impact of professional context on learning is consistent with the findings of Clark (1991) who found that context was "more than incidental to the learning process, but was directive and determinative of the learning" (p.98). While this study has helped to address this gap in the literature by exploring the learning experiences of nonprofit association CEOs, additional focused research on CEOs is warranted.

The increased use of reflection and decreased use of discourse provide new insights into how context impacts learning processes in Mezirow's theory. Mezirow (1998) asserts that context is central to learning in his theory, but there is a need to develop more fully the linkage between context and the processes of adult learning. In particular, the reflective learning practices used by the CEOs in this study seem to be less of a critique, less judgmental, than Mezirow suggests. Thus, Mezirow's assertion that vigorous critique is an essential component of reflection is questionable based on this study. Given that reflection was not the focus of this study, this conclusion suggests that further research that focuses on CEOs' reflective practices is warranted. Specifically, it is recommended that the concept of reflection v. critical reflection be explored to better understand the nuances of reflection and their impact on the learning process and outcomes. The research methodology could include asking CEOs to maintain daily or weekly journals so that data on the CEOs' reflective practices might be more closely linked to recent events and/or

actions. Additionally, the discourse that CEOs described as helpful in their learning (often with their spouse) did not appear to be "rational" discourse that Mezirow asserts is necessary for learning to occur. It is recommended that this element of Mezirow's adult learning theory also be explored in more depth by studying CEOs' discourse exclusively. Descriptions of discourse from both the CEOs and those with whom the CEOs spoke could provide data leading to a better understanding of the degree to which the discourses met (or failed to meet) the conditions of "rational" discourse asserted by Mezirow.

This study explored the learning experiences of CEOs with at least two years' experience but no more than seven years' experience as CEO. It would be helpful to compare the findings of this study with the learning experiences of seasoned CEOs. A study of CEOs with, for example, at least fifteen years of CEO experience could provide helpful insights as to whether the political elements of the job are related to length of time as CEO. Additionally, while this study focused on the learning experiences of nonprofit association CEOs, it would be interesting to replicate this study with other types of nonprofit organizations, such as foundations, philanthropic and social welfare organizations and compare the findings.

Implications for HRD Practice. One disturbing conclusion of this study is the tendency for nonprofit association CEOs to become so self-absorbed amid the political intensity of their context that they fail to act on learning that could help their organizations. This conclusion is made based on the fact, that when CEOs were asked to share their significant learning experiences in the CEO role, the stories shared were predominantly about navigating the political process with the board and avoiding political trouble that could put their jobs at risk. HRD must provide mechanisms for CEO development that address the unique pressures of the CEO context.

HRD practitioners can assist CEOs, and aspiring CEOs, in their development by first informing them about the unique aspects of learning in the CEO context and how this will influence, among other things, their access to information, their learning, and ultimately, their capacity to act. Once CEOs become aware of how their context influences what and how they learn, HRD practitioners can focus on development of CEO learning processes and content that address their unique context. It is asserted that CEO development will be most effective if HRD practitioners can develop executive coaching relationships with CEOs or aspiring CEOs. As this study clearly showed, CEOs feel isolated and an effective executive coach could serve as a valuable learning resource to a CEO. Among the areas of focus for the executive coach working with the CEO is development of skills for operating in political environments, development of influencing skills, and development of reflective practice.

Conclusion

The powerful influence of the nonprofit association CEO context on CEO learning was clearly evident in both the phenomenological method of data analysis and the thematic data analysis using Mezirow's theory as framework of inquiry. Both forms of analysis produced important insights into not only what CEOs learn and how they learn, but also the impact of context on CEOs' acting on that learning. This research is significant in that it has addressed an important gap in our understanding of HRD at the CEO level by focusing on the learning experiences of CEOs specifically. It also addressed a gap in the research of Mezirow's adult learning theory by providing new insights on the role of context on key concepts of his theory. Finally, this research began to provide a bridge between the research in adult learning and HRD that benefits both fields of study. As the CEOs' in this study asserted, learning is key to CEOs' leading their organizations, and our better understanding of the phenomenon of CEO learning will ideally translate into increased success for both the CEOs and their organizations.

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The Awareness and Utilization of Emotional Intelligence in Leadership Development as Perceived by HRD Practitioners in the Kansas City ASTD Chapter

Joseph Nantawut Leeamornsiri
Robert C. Schwindt
Pittsburg State University

The utilization of emotional intelligence (EI) concepts in the leadership and management development activities of organization in the Kansas City metropolitan area was investigated. Data was gathered and analyzed related to the awareness of EI by HRD practitioners and organizational managers, the perceived benefits of the use of EI competencies, the emphasis put on the core EI competencies in leadership and management development activities, and the perceive emphasis put on the application of EI competencies.

Key words: Emotional Intelligence, Leadership Development

Goleman's book *Emotional Intelligence*, published in 1995, was widely read. "We are being judged by a new yard stick not just how smart we are, by our training and expertise, but also by how well we handle ourselves and others" (Goleman, 1998, p.1). Mayer and Salovey revised their definition of emotional intelligence in 1997 to include "the ability to perceive oneself and other things accurately, the ability to appraise and express emotions appropriately, the ability to generate and access emotions which facilitate thought, the ability to understand emotion and knowledge, and the ability to regulate emotions to improve emotional and intellectually growth" (Salovey & Mayer, 1998, p.81).

The concept of emotional intelligence has become widely known and accepted in business and industry. Emotional intelligence includes the basic personal qualities of, emotional maturity, self-confidence, self-awareness, personal integrity, and the knowledge of personal strengths and weaknesses. Emotional Intelligence is the capacity for recognizing one's own feelings and those of others, for motivating, managing, and developing (Cherniss, 2000).

Emotional intelligence is very important to HRD practitioners, and it is important for the HRD practitioner to understand the concept, the related values and competencies, and to be aware of the theory and the research on which it is based. This research study describes how HRD leadership development practitioners perceive emotional intelligence, and the perceived benefits related to work environment, performance, and productivity.

Problem Statement

Current literature indicates the success of leaders is related to their emotional intelligence (EI). However there is limited information on the awareness and utilization of EI by HRD practitioners. This study investigated the utilization of emotional intelligence concepts in the leadership/management development activities of organizations in the Kansas City metropolitan area. Five research questions were addressed in order to guide the acquisition of data needed to satisfy the requirements of the statement of the problem.

Theoretical Framework

Emotions influence jobs and lives. Emotion also impacts decisions, questions, instructions, and reactions. Today organization structures and cultures are changing rapidly in most businesses and industries because of the impact of high technology, globalization, political situations, and economic changes. The need for emotional intelligence in leadership development is more important than ever before. Cooper and Sawaf in emphasizing the value of emotional intelligence in leadership and organizations stated: "We are in the beginning stages of what many authorities believe will be the next revolution in business"(1997, p.xi).

The researcher established several parameters for this study, which may affect the application of the findings to other populations. The definition and components of EI under this study, as well as portions of the survey instrument were based on Goleman's theory of emotional intelligence. Goleman included competencies under two categories of personal competence and social competence. These competencies were self-awareness, self-regulation, self-management(handling emotions), social awareness(handling relationships), empathy, and social skills (Goleman, 1998).

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Methodology

This was a descriptive research study where a survey instrument was used to obtain data from HRD practitioners. The population for this study was members of the Kansas City Chapter of the American Society for Training and Development (ASTD) who were listed in the 2000-2001 Kansas City ASTD Membership Directory, and had selected leadership/management development as their specialty. It did not include individuals who joined after the directory was published or members whose address had changed. There were 148 members listed with this specialty. Since this population was small, all were included in this study.

Development of the Instrument

The survey instrument was based upon the review of literature. Each research question was addressed by a specific section of the survey instrument. Likert-type scales were used. A five points scale that ranged from "unaware" to "highly aware" was used to determine the awareness of emotional intelligence. A five point scale that ranged from "strongly disagree" to "strongly agree" was used to determine perceived benefits. A five points scale that ranged from "major emphasis" to "not applicable" was used to measure the emphasis put on emotional intelligence activities in leadership development.

Validation of the Instrument

A sample of HRD practitioners was used to examine the content and face validity of the survey instrument. They were urged to make suggestions to improve the instrument's format and how the items were written. This was done to enhance the survey instrument and therefore the validity of the study. A panel of experts consisting of the thesis committee also examined the survey instrument for face validity. To determine the reliability of the instrument during the pilot study, the survey instrument was administered to a sample of 22 HRD practitioners who were randomly selected from the Kansas City ASTD Chapter membership directory. Nine survey instruments were returned for a 41 percent return rate. The data from this pilot test were analyzed for the five parts of the survey instrument. Cronbach's alpha coefficients for reliability for the sections of the survey instrument ranged from 0.8092 to 0.9394. According to these result there were no significant changes needed for reliability.

Survey Times Lines

The survey instrument along with a cover letter and postpaid envelope was sent to each member of the population. A second mailing was sent two weeks after the first mailing to all non-respondents. The researcher started processing the data that had been collected two weeks after the first mailing. The researcher stopped collecting and processing data that came in more than three weeks after the final mailing.

Processing of Data

As the data was gathered, the findings were entered in tables and figures and a narrative was developed to report the findings. The mean and standard deviation were determined for each item for the survey section' related to levels of understanding, perceived benefits, and emphasis put on EI.

Limitations

The researcher recognized that there were some factors outside of his control, which may limit the findings of this study. The researcher recognized the following limitations as being viable:

1. This study may be limited by the emphasis put on EI by the organization's philosophy toward leadership.
2. This study may be limited by the climate in the organization, which may influence the acceptance of EI principles.
3. This study may be limited by the knowledge and understanding of EI by the sample members. There are several different concepts including different competencies related to EI in HRD.

Results and Findings

A summary of the research study findings follow related to each of this study's research questions. Conclusions are then given for each research question.

Research Question 1

What is the perceived knowledge level about Emotional Intelligence of members of the Kansas City ASTD Chapter who have a specialty in leadership/management development? Of the 53 respondents, 12 (22.6%) indicated that they did not know the meaning of emotional intelligence. These individuals may have never heard of the concept of emotional intelligence, or they may have heard of EI but did not understand the concept.

Table 1. *Respondents Understanding of Emotional Intelligence (n=41)*

Competencies	Mean	Std. Deviation
Developing empathy for others	4.33	0.865
Managing emotions	4.26	0.819
Self-awareness	4.19	0.879
Handling relationships	4.19	0.852
Motivating oneself	4.12	0.905
Social skills	4.12	0.878
Self-regulation	3.95	1.068
Summated values	**4.16**	**0.777**

NOTE: 1= unaware, 5= highly aware

The second section of the survey asked respondents who knew the meaning of emotional intelligence how well they understood the components of emotional intelligence. Data in Table 1 indicates that respondents were the most aware of developing empathy for others ($\underline{M}$ = 4.33, $\underline{SD}$ = 0.865) and self-regulation the least ($\underline{M}$ = 3.95, $\underline{SD}$ = 1.068). Respondents understood managing emotion ($\underline{M}$ = 4.26, $\underline{SD}$ = 0.819) more than self-awareness and handling relationships. The summated mean of 4.16 ($\underline{SD}$ = 0.777) indicates that overall respondents who were familiar with emotional intelligence clearly understood and tended to be aware to highly aware of the seven components of emotional intelligence as identified by Goleman.

Research Question 2

How aware are managers about Emotional Intelligence, as perceived by HRD practitioners? The third question on the survey asked the respondents how well the manager in their organization understood the components of emotional intelligence. Data indicates that respondents perceived that managers understood motivating oneself best ($\underline{M}$ = 3.28, $\underline{SD}$ = 1.031) while developing empathy for others the least ($\underline{M}$ = 2.72, $\underline{SD}$ = 1.202).

Table 2. *Perceptions of Managers Understanding of Emotional Intelligence (n=41)*

Competencies	Mean	Std. Deviation
Motivating oneself	3.28	1.031
Social skills	3.18	1.075
Managing emotions	3.07	0.986
Self-regulation	3.00	1.134
Handling relationships	3.00	1.024
Self-awareness	2.84	1.022
Developing empathy for others	2.72	1.202
Summated values	**3.01**	**0.901**

NOTE: 1= unaware, 5= highly aware

The summated mean of 3.01 ($\underline{SD}$ = 0.901) indicates that overall respondents perceived that managers in their organizations were only somewhat aware and did not clearly understood the seven components of emotional

intelligence. The literature indicated that understanding of emotional intelligence concepts has a major impact on individual performance and organization productivity. Church and Waclawski also stated managerial self-awareness (MSA) is the ability to reacts and reflects accurately related to one's own feeling, behaviors, and skills associated with workplace interaction (Church and Waclawki, 1999). Cherniss explains that self-awareness is essential for business and professions success. She pointed out evidence that showed the most successful performers deeply understand and know how to express their feeling when making important decisions (Cherniss, 2000). HRD Practitioners in this study perceived that managers self-awareness was one of the lowest of the EI competencies (M = 2.84, SD = 1.022). If managers are low in self-awareness, the organization may not be receiving the full benefits of emotional intelligence given in the literature.

Research Question 3

What do these HRD practitioners perceive as being the major benefits of the use of EI competencies in their organization? More successful relationships with coworkers (M = 4.49, SD = 0.506) was the highest perceived benefit of EI, while managers with loyalty to their employer (M = 3.17, SD = 0.881) was perceived as the lowest rated benefit. The summated mean of 4.06 (SD = 0.491) indicates that overall respondent's agreed to strongly agreed with the perceived benefits of emphasizing emotional intelligence, as given in the review of literature by Cherniss, Cooper and Sawaf. Goleman contends that leaders who have control over their emotions are more likely to resolve conflicts.

Table 3. *Perceptions of the Benefits of Emphasizing Emotional Intelligence (n=41)*

Benefits	M	SD
Managers with a high EI tend to have more successful relationships with coworkers.	4.49	0.506
Managers with a high EI tend to be more empathetic to co-workers.	4.45	0.503
Managers with high EI tend to have better leadership skills.	4.45	0.629
Managers with a high EI are usually better resolving conflict.	4.38	0.691
Managers with a high EI tend to control their emotions better.	4.33	0.650
Managers with high EI usually make better decisions.	4.31	0.680
Managers with a high EI tend to handle stress better.	4.24	0.790
Managers with a high EI tend to react appropriately to crisis situations.	4.20	0.552
Managers with a high EI tend to be better at adapting change.	4.14	0.861
Managers with a high EI seem to have more self-esteem than their peers.	4.12	0.772
Managers with a high EI seem to have more satisfying personal lives.	4.12	0.931
Managers with a high EI tend to have more self-confidence.	4.07	0.778
Managers with a high EI tend to be better at handling change.	3.98	0.963
Managers with high EI are usually more self-motivated.	3.98	0.841
Managers with a high EI are usually more satisfied with their careers.	3.86	1.049
Most managers are able to significantly raise their EI.	3.37	0.829
Managers with a high EI tend to be more innovative.	3.36	0.906
Managers with a high EI are usually more loyal to their employer.	3.17	0.881
Summated values	**4.06**	**0.491**

NOTE: 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree

One important finding of this study which conflicted with the literature is the data that showed respondents were uncertain if most managers are able to significantly raise their EI (M = 3.37, SD = 0.829). The literature indicated that emotional intelligence is improved as people age and gain experience and knowledge (Goleman, 1998). Cooper and Sawaf believed people can develop their emotional intelligence. When facing change and challenge, emotional fitness will function and balance the emotional and mental adaptability to handle stress and problems more wisely and more openly (Cooper and Sawaf, 1997). A significant study over developing emotional intelligence in leadership shows that emotional intelligence is developed best at the adult age by focusing on performance, culture diversity and organization change (Hay Group, 1999).

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The researcher questioned this perception of the HRD practitioners in this study, whether managers can raise their level of emotional intelligence? What will be the affects in their training programs to improve their people if the HRD practitioners believe that people's EI cannot be imp roved?

Overall emotional intelligence was perceived to benefit individual performance and organization productivity. These results imply to HRD practitioners how emotional intelligence functions and are correlated to the development of training programs such as management and leadership development, coaching, intervention process, strategic planning, communication, and effective teamwork.

Research Question 4

How much emphasis is put on the core EI competencies by HRD practitioners in leadership/management development activities? Data indicates that respondents put the most emphasis on handling relationships (M = 3.13, SD = 0.812) and put the least emphasized on social skill (M = 2.61, SD = 0.891) in leadership development activities. The summated mean of 2.84 (SD = 0.738) indicates that overall respondents emphasized emotional intelligence in leadership development activities

Data from Table I indicate that most respondents were very aware of the emotional intelligence concepts but Table IV indicates they did not put a major emphasis on it in their jobs. Emotional intelligence had not been emphasized widely in human resource development before the mid 1990. Earlier work had been more in education. Therefore, the researcher was not able to locate studies that showed were much it has been incorporated into human resource development programs.

Table 4. *Emphasis on Emotional Intelligence in Leadership Development Activities (n = 41)*

Competencies	Mean	Std. Deviation
Handling relationships.	3.13	0.812
Self-awareness.	2.93	0.959
Motivating oneself.	2.93	0.933
Developing empathy for others.	2.80	0.912
Self-regulation.	2.75	0.954
Managing emotions.	2.74	1.049
Social skills.	2.61	0.891
Summated values	**2.84**	**0.738**

NOTE: 4 = Major Emphasis, 3 = Emphasized, 2 = Little Emphasis, 1 = No Emphasis.

In general respondents tended to put more emphasis on those components of EI where they perceived managers having the lowest understanding (Table II). The most emphasis was placed on handling relationships, which has a lower mean rating in Table II. Lower emphasis was reported on social skill, and managing emotions which had higher means in Table II. Respondents reported lower perceived benefits of emphasizing emotional intelligence in leadership development activities as shown in Table III. Most respondents emphasized developing relationships with others rather than on managing and improving their own skill in leadership development activities.

Robert W. Allen, Goleman, and Gerald Grinstein state leadership is the emotionally perception, and source of power in the organization. Goleman also stated that leadership styles are related to emotional intelligence and organizational effectiveness, the visionary leaders are empathetic and have a strong level of self-confidence, important for change (Goleman, 2000). "Covey suggests the way in which leaders conduct themselves in the face of complexity, whether wise of foolishly, is based largely on the leader's knowledge of emotional management and ability of effectively manage him or herself" (Lorie, J, 1997, p.193).

Emotional intelligence is related to mangers' personality and leadership style as well as the organization's culture. Therefore, even thought EI is emphasized in leadership and management classes, it may take time to get managers to change their leadership style resulting in a change in the organizational culture. Integrating the concepts of EI into an organization must be thought of as a long term HRD goal. This will include other interventions besides training such as changes in selection, performance appraisal, and rewards that emphasize EI concepts.

Research Question 5

How much emphasis do these practitioners perceive is being put on the application of EI competencies by their organization? Data indicates that respondent's were perceived to put the most emphasis on promoting line

employees to supervisor (M = 2.35, SD =0.907) and the least emphasis on promoting managers (M = 2.08, SD = 0.870). Overall respondents put more emphasis on emotional intelligence in their organization when promoting line employees to supervisor and selecting new employees than when selecting and promoting managers, professional staff, sales and marketing, management teams, and supervisors.

Table 5. *Perception of the Emphasis of Emotional Intelligence in Organizations (n=41)*

Organizational Activities	Mean	Std. Deviation
When promoting line employees to supervisor.	2.39	0.907
When selecting new employees.	2.36	0.873
When conducting performance evaluation.	2.33	0.829
When selecting professional staff.	2.31	0.800
When selecting sales and marketing personal.	2.30	0.969
When hiring outside for management positions.	2.23	0.931
When selecting management teams.	2.15	0.875
When selecting managers for advanced education.	2.13	0.935
When reorganizing functions in department.	2.13	0.978
When selecting managers for special projects.	2.13	0.833
When promoting managers.	2.08	0.870
By top management in your organization.	1.98	0.947
Summated values	**2.20**	**0.723**

NOTE: 4 = Major Emphasis, 3 = Emphasized, 2 = Little Emphasis, 1 = No Emphasis.

Respondents perceived that top management in their organization put little emphasis on emotional intelligence (M = 1.98, SD = 0.947). This suggests that top management in most organization are not using emotional intelligence in their leadership and management. Most of the literature reported that emotional intelligence is one of the most essential factors that predicts success in individual work performance and organization productivity.

The low mean scores for all activities surprised the researcher. This may be related to the perceptions of the manager's understanding of emotional intelligence, as shown in Table II. The respondent's perceived that managers were somewhat aware of the emotional intelligence concepts (M = 3.01, SD = 0.901) while the utilization of the emotional intelligence concepts in their organizations were very limited with little emphasis from managers, executives, and top management in the organization.

According to the literature, emotional intelligence has a major impact on management and leadership development that predicts success and organization's productivity. Goleman states that emotional intelligence theories can help explain and give a clear reason why so many people who are abrasive, thoughtless, and otherwise interpersonally inept are in so many positions of power in organization (Goleman, 1998). Cooper and Sawaf, in emphasizing the value of emotional intelligence in leadership and organizations, stated, "We are in the beginning stages of what many authorities believe will be the next revolution in business"(Cooper and Sawaf, 1997, p.xi). Dulewicz and Higgs stated that emotional intelligence accounted for 36 percent of the variance in organizational advancement while IQ accounted for only 27 percent and Management Quotient (MQ) account 16 percent of the variance. Their study showed that emotional intelligence was more essential to career advancement then IQ (Dulewicz and Higgs, 1997). A study of managerial success at AT&T Company provides a good example of self-confidence as a major predictor of career success, effective performer, and organization productivity (Boyatzis, 1999, Cherniss, 2000).

Conclusions and Recommendations

Of the 53 respondents, 12(22.6%) indicated they did not know what was meant by emotional intelligence. Data indicated that the other 41 HRD practitioners felt they have a fairly high awareness of emotional intelligence. Respondents perceived the managers in their organizations were only somewhat aware and did not clearly understood the seven components of emotional intelligence. Overall, respondent's agreed with the perceived benefits of emphasizing emotional intelligence derived from the literature review. Data indicated that overall emotional intelligence was emphasized in leadership development activities and the respondents put the most emphasis on handling relationships in leadership development activities. Respondents indicated little emphasis was placed on emotional intelligence in their organizations and by top management.

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Emotional intelligence is reported in the literature as one of the essential ingredients in business, industry and academic work that predicts success in individual work performance and organizational productivity. Goleman stated that emotional intelligence theories can help explain the leadership failures of many people in positions of power in organization who are abrasive, thoughtless, and otherwise interpersonally inept (Goleman, 1998). Integrating the concepts of EI into an organization must be thought of as a long term HRD goal. Limited literature is available over the awareness and the utilization of EI theories among HRD practitioners, so HRD practitioners need to focus on both future EI research and practice. After reviewing the related literature and analyzing the results of this study, the following recommendations for practice were made:

1) Human resources and management professional organizations should emphasize EI more, since over 20 percent of respondents were unaware of the meaning of EI. HRD practitioners need to interact more with other fields related to EI theory and research such as psychology, sociology, and management.

2) HRD practitioners may need more education and research related to the utilization of EI. HRD practitioners first need to believe that people's EI can be improved with effective training programs and organizational and performance development interventions. They must also be highly aware of the impact of EI on their jobs.

3) HRD practitioners may need to focus more on emotional intelligence in leadership development and management development. They should provide education and training in the utilization of knowledge, skill, strategy, and behaviors associated with emotional intelligence concepts. Even though most respondents indicated they emphasized EI, their perceptions are that these concepts are not being utilized strongly by the managers and top management in their organizations.

4) HRD practitioners may need to involve others in human resources in promoting the use of EI in activities such as selection, promotion, and performance appraisals. Respondents perceived that EI received little emphasis in these human resource activities in their organizations.

5) Top management need to promote emotional intelligence so it is implemented in all organizational levels. Respondent's perceptions were that top management put little emphasis on emotional intelligence. More emphasis should help adapt to change, manage conflict and stress, build positive relationships, and allow them to utilize their emotional intelligence to inspire, influence, coach and persuade others.

After reviewing the related literature and research and analyzing the results of this study, the following recommendations were made for future research and study in EI:

1) Future study of emotional intelligence in management and leadership development should involve larger populations so results can be generalized to other populations. It should directly survey managers and leaders.

2) Future study should interview HRD practitioners and managers about their understanding of emotional intelligence and their utilization. This would provide more detailed information than survey perceptions.

3) Future study should identify and measure how using EI affects important business operations and results such as productivity and return on investment. This information should help persuade managers of EI benefits.

4) Future study should put more emphasis on the theory of individual performance and organization productivity by applying the concept of emotional intelligence to jobs and the design of effective training programs.

5) Future study should emphasize how HRD and OD practitioners can design and develop programs for the utilization of emotional intelligence to improve their knowledge, skills, and capacity. Survey data indicated that HRD respondents did not strongly utilize the emotional intelligence in their jobs, and they perceived managers in their organization did not utilize the concepts either.

Contributions to HRD

Findings of this study should be important to the HRD practitioner, manager, and CEO in the organization. Emotional Intelligence is an essential ingredient for business efficiency and success. This study helped identify the EI competencies that help managers and leaders build personal and interpersonal strength and improve skills to balance and manage their emotions appropriately in order to adapt more sustained change throughout the organization. This should help their organizations in the competitive world market place of today and in the future.

This research describes how one sample of HRD practitioners understand, emphasize, and utilizing the concept of emotional intelligence associated with leadership/management development. The benefits of emotional intelligence can have a strong impact when applying the theories of individual performance and organization productivity to jobs and the design of effective training programs. The emotional intelligence concept influence HRD and OD intervention plans and strategies such as selection, promotion, force field analysis, coaching, reengineering, leadership/management development and performance appraisal.

This study adds to the limited emotional intelligence research associated with the awareness and utilization by HRD practitioners. Emotional intelligence theory should be one of the essential considerations for HRD practitioners when designing training programs, developing people's knowledge, skills, and work performance, and when coaching and implementing change.

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Moving HRD Beyond "Paint by Numbers": Aesthetic Epistemology and Arts-Based Learning in Management Education

Nick Nissley
University of St. Thomas

This manuscript seeks to describe an emerging phenomenon in management education – how aesthetic epistemology (aesthetic ways of knowing), or arts-based learning is informing the practice of management education. It provides a literature review and examples of how arts-based learning is being practiced in management education – framed by the art forms of music (e.g., blues, jazz, and orchestra), drama (e.g., theater and cinema), literature (e.g., novels and poetry), and visual arts.

Keywords: Management Education, Arts-Based Learning, Organizational Aesthetics

This manuscript serves to recognize those management educators who are rethinking the traditional logico-rational paradigm (way of knowing) that presently frames much of management education. It does not seek to suggest that aesthetic epistemology (aesthetic ways of knowing) or arts-based learning can, or should, replace any of the more conventional practices of management education. Mindful of multiple ways of knowing this manuscript seeks to identify arts-based learning as a valuable adjunct to the current dominant pedagogy of management education.

In this manuscript, the term "arts-based learning" is used to broadly refer to ways that "the arts" are being introduced into management education. Elsewhere the term "aesthetic epistemology" (Nissley, 1999a) has been used to refer to aesthetic ways of knowing. And, similarly, others have sought to describe this phenomenon that is here referred to as arts-based learning, calling it: "aesthetic modes of knowing" (Reimer & Smith, 1992, p. 23), "arts based training" (Arts & Business, 2001), "art as a way of knowing" (Greene, 1995), "expressive arts consulting and education" (California Institute of Integral Studies, 2001), or "creative learning" (Vaill, 1996).

Aesthetic Epistemology and Management Education

In the broader context of organizational studies, Barrett (2000, p. 229), recognizing the short comings of the dominant logico-rational paradigm, asks, "If rational ways of knowing are inadequate, are there any alternatives?" Similarly, and more specific to the field of management education, Alvarez & Merchán (1992) assert that the act of management requires the use of several types of knowledge. This manuscript is an examination of one type of "other" knowledge – aesthetic epistemology and its application in management education.

Within the interdisciplinary field of organizational studies, organizational aesthetics is an emerging sub-specialty (e.g., Strati, 1992, 1999; Linstead & Höpfl, 2000). Generally speaking, organizational aesthetics provides us with an aesthetic way of understanding organizational life. This manuscript more specifically discusses arts-based learning in organizations – how artful ways of knowing are being practiced in organizations. While a recent issue of the Society for Organization Learning's journal, *Reflections* (2001), was dedicated to "The Arts in Business and Society," it provided a more limited understanding of arts-based learning in organizations.

Within the discipline of management, there are examples of the use of aesthetic epistemology to frame understanding within the sub-disciplines of: *accounting* (Chua & Degeling, 1993), *business ethics* (Brady, 1986; McAdams & Koppensteiner, 1992),*marketing* (Schmitt & Simonson, 1997), *product design* (Gelernter, 1999), leadership (Palus & Horth, 1996, 1998, 2001), *organization design* (Hatch, 1999), *organization development* (Ramsey, 1996, 1997; De Ciantis, 1995), and *career management* (Albion, 2001;Whyte, 2001)including management (Vaill, 1989).

Yet, our understanding of aesthetic ways of knowing in the field of management education has been examined only little outside of metaphorical conceptualizations of "the art of good teaching" in management education (*Journal of Management Education*, Special Issue: The Art of Good Teaching, 1997) and Bilimoria's (1999) pondering, of what "if management schools focused on helping students gain facility in harnessing aesthetic and evocative aspects to the same degree as developing technical and administrative knowledge and skills" (p. 466).

While the "art of" metaphor can readily be found in the titles of books and articles that seek to educate managers, this manuscript moves beyond the metaphorical conceptualization of "the art of management" to also consider how managers are engaging with the arts, and not just thinking about them. Within this approach, examples

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of both *art-perceiving* (e.g., watching a play, reading a novel, viewing a corporate art collection) and *art-making* (company-sponsored and self-initiated) are provided within the practice of management education. This manuscript focuses on the company-sponsored type (e.g., formal management education) versus the self-initiated or self-directed type of arts-based learning noted in Taninecz (1996). Taninecz describes a growing number of "executives who satisfy a need far removed from the mental and physical constraints of corporate corridors," noting "these whitecollar sculptors, painters, and poets – in addition to satisfying a need to express themselves – believe that creative pursuits can enhance leadership capabilities and management acumen" (p. 111). This manuscript seeks to describe, through a literature review and examples, how aesthetic epistemology (aesthetic ways of knowing), or arts-based learning is informing the theory and practice of management education.

The Art of Management Education

Here we turn our attention to examples of how arts-based learning is being used in the education and development of managers at work. This section provides a literature review and examples of how arts-based learning is being practiced in the management education classroom – framed by the art forms of music (e.g., blues, jazz, and orchestra), drama (e.g., theater and cinema), literature (e.g., novels and poetry), and visual arts. Next, we'll begin by "tuning-in" to how the musical arts are being engaged in management education.

Musical Arts

There are a growing number of references in the management and organizational studies literature that explore the music-organization relationship, such as Pogacnik's (1999) connection between music and listening, Hawkins' (1998) connection between music and dialogue, and Jones & Shibley's (1999) discussion of the "practice culture" of musicians and the "performance culture" of organizations – asserting that each has a lot to learn from the other. Examples of how the musical arts are being engaged by management education include the musical arts of jazz, orchestra, and blues, as well as other musical forms – including drumming circles.

Jazz. The jazz metaphor has been extensively covered in the organization and management studies literature (e.g., *Organization Science* (1998) – special issue on jazz improvisation and organizing). Practitioners have joined academic theorists, seeking to make sense of jazz as a metaphor for organizational life. For example, Jazz Impact (2001) engages organizations with jazz music – as an arts-based learning approach to management education.

Orchestra. Mintzberg (1998) and Atik (1994), for example, examine the orchestra conductor as a metaphor for organizational leadership. Similar to "Jazz Impact," mentioned above, practitioners have joined academic theorists, seeking to make sense of the orchestra as a metaphor for organizational life. For example, the musicians of Orpheus (2001), the conductor-less orchestra, have entered conversations with business organizations that seek to learn how the Orpheus orchestra's way of creating music may serve as a model for their own organization. Harvey Seifter, the Executive Director of the Orpheus Chamber Orchestra, along with Peter Economy (2001) have co-authored a book about the "Orpheus Process" – how the Orpheus model of organizing may help other organizations re-create this model of collaborative leadership. In addition, "The Music Paradigm" (2001) brings business organizations together with orchestra musicians, as the business organization seeks to learn different ways to "look at" organizational life.

Blues. Beyond the orchestra pit, yet similar to "The Music Paradigm," "Face the Music" (2001), a hybrid of organization development consultants and blues musicians work with organizations – actually creating blues music and exploring the "down-side" of organizational life (Muoio, 2000). Mitch Ditkoff (Face the Music, n.d.), founder of "Face the Music," explains how they use blues music as a means of arts-based learning in organizations:

> Most people who work in a corporation are usually experiencing some form of the "blues" – a mixed bag of complaints, gripes, and grumbles that become a kind of low-grade virus on the job … At the turn of the century, when field workers and share croppers had the blues, their response was basic and soulful. They sang it. And, that quite simply, was the beginning of their change process. In fact, that's how all change begins. By somebody "telling it like it is" – from the heart – in a way that can be heard. In most corporations, however, there are very few opportunities for people to do this.

"Face the Music" facilitates managers in writing and singing the blues – about workplace life – so, change may be realized.

Percussive. Similar to "Face the Music," who use blues music as an arts-based learning approach to management education, *Fast Company* (Pratt, 2000) has noted a growing interest in using drumming and other percussive instruments as another musical approach to arts-based learning in organizations. A number of musicians are bridging the worlds of music and organization, consulting to corporate clients (e.g., One World Music, 2000). These consulting musicians assist organizations with team-building, collaboration, creativity, and diversity training – through making a connection to musical metaphors such as rhythm and tempo.

Drama Arts (Theater and Cinema)

The use of drama, including stage performance (theater) and screen performance (cinema), as a means of management education, is also growing beyond the metaphorical. This is evidenced by the emerging acceptance of drama within the practice of formal management education within academia as well as the growth of consultants engaging in theater-based training within businesses. Similarly, many references exist discussing the use of film as a general resource for management education. Consider the following examples from stage performance (theater) and screen performance (cinema), which show how these two dramatic forms are being engaged as a means of arts-based learning in management education.

Theater. Within the halls of academia, at the 1998 Annual Meeting of the Academy of Management, Steven Taylor (2000) presented straight fiction – a play, *Capitalist Pigs.* Taylor followed this up with another play, *Soft Targets*, presented at the 2001 Annual Meeting of the Academy of Management. Similarly, Barry Oshry (2001) has recently written and had performed, a three-act play, that theatrically presents his ideas about power and organizational systems (Power and Systems, 2001). In addition, popular business literature is emerging, such as these books dedicated to what Shakespearean drama may teach us about management: Whitney & Packer (2000), Shafritz (1999), Augustine & Adelman (1999), Corrigan (1999), and Burnham, Augustine, & Adelman (2001). Finally, there is a growing number of consultants engaging in theater-based training (e.g., Harvard Management Update, 1999; Houden, 1997), including scripted stage performances (e.g., Theatre at Work, 2001) as well as unscripted improvisational theater (e.g., Pacific Playback, 2001; Barton, 2000). Within work organizations we are witnessing the development of "organizational theater," which (Schreyögg, 2001), defines as tailor-made plays staged for a specific organization, often dramatizing critical problems of work life. He notes that in 1997, over 2000 organizational theater performances were conducted in France, and 200 in German organizations. Even the venerable Globe Theatre has teamed up with Cranfield University's School of Management (Praxis: The Centre for Developing Personal Effectiveness, 2001), creating an arts-based learning collaboration.

Cinema. Many references exist which discuss the use of film as a general resource for management education (e.g., Carley, 1999; Champoux, 1999a), as well as addressing specific areas, such as organizational behavior and management theories and concepts (Champoux, 2000a; 2000b), business ethics (Gerde, Shepard, & Goldsby, 1996; Giacalone & Jurkiewicz, 2001) and leadership (Wolff & Clemens, 1999). Champoux (1999b) has even considered the specific genre of animated films as a teaching resource for the management educator.

Literary Arts

Beyond the current management education fad of "Shakespeare on ..." (e.g., Whitney & Packer, 2000; Shafritz, 1999; Augustine & Adelman, 1999; Corrigan, 1999; Burnham, Augustine, & Adelman, 2001), there has been a serious growth of fiction as a popular genre of literary art within the organizational studies and management education classroom (e.g., Czarniawska-Joerges & Guillet de Monthoux, 1994; Brawer, 1998; Knights & Wilmott, 1999; Mayer & Clemens, 1999). Some specialized attention has been focused on the use of fiction in teaching ethics in management education (e.g., Kennedy & Lawton, 1992; McAdams & Koppensteiner, 1992). Czarniawska (1999) even proposes the fiction literature genre of the detective story as helpful in understanding management work, and similarly Parker, Higgins, Lightfoot, & Smith (2001) propose that science fiction may enrich our understanding of organizational life. In addition to detective stories and science fiction, the comic genre is also being used in management education (e.g., Telescope Comics, 2001). Poetry has also become a popular genre of literary art in the management education classroom (e.g., Whyte, 1994, 2001; Windle, 1994; Autry, 1994, 1996).

There even exist resources to assist the management educator who wants to integrate literary art (and cinema art) into his/her classroom. For example, The Hartwick Humanities in Management Institute at Hartwick College (USA) provides university faculty with cases (22 film cases and 57 literature cases) to enhance management and leadership education. This aesthetic way of knowing is described by Hartwick as: "Transforming great texts and films into unforgettable management and leadership lessons" (Hartwick Humanities in Management Institute, n.d.).

Visual Arts

This section focuses on the use of visual arts in learning interventions. Consideration of other forums for engaging with visual arts in management education (e.g., corporate art, museums, etc.) is addressed by the author in *Rethinking Management Education* (Nissley, 2002). The general training and development literature has recently spoken to the potential value of visual art in facilitating learning in organizations (e.g., Simmons, 1999; Cohen & Jurkovic, 1997). Consider the following examples.

First, Marjory Parker (1990) describes an application of arts-based learning intervention in the workplace. She focuses on a process of arts-based learning of the organization's vision and values, at Europe's largest producer of aluminum, Norway's Hydro Aluminum Karmøy Fabrikker. In *Creating Shared Vision: The Story of a Pioneer Approach to Organizational Revitalization*, Parker, the organizational consultant who helped them through the strategic visioning process, describes why pictures really are worth a thousand words. The final vision statement was co-created by nearly every employee, over a two-year period. It was not a piece of writing at all, but an extraordinary mural of a flourishing garden, in which every plant and element embodied rich metaphorical meaning.

Second, Sims & Doyle (1995) describe an arts-based learning technique, called cognitive sculpting, a "technique for helping managers to talk through and develop their view of difficult and complex issues, which are given expression by arranging a collection of objects, some of them symbolically rich, in an arrangement or sculpture" (Sims & Doyle, 1995, p. 117). And third, Nissley & Jusela (2001b) describe a similar arts-based learning technique and its use by managers in a knowledge creation process. Similar to the cognitive sculpting technique and the process described by Nissley & Jusela, Barry (1996) provides an example of his work with Kinetic Family Drawing technique to better understand management and organizational life.

Fourth, De Ciantis (1995) also describes a training technique (Touchstone), employed at the Center for Creative Leadership (CCL), that uses art to help people develop as leaders. It is designed upon an exploration of artistic modes of inquiry. This learning exercise incorporates visual art, including sculpting, and drama performance. The technique is used by CCL in a program, "Leading Creatively," that defines a set of "aesthetic competencies" for leadership. Palus & Horth (1998, 2001) note that their work in the "Leading Creatively" program has lead them to find two sets of competencies necessary to lead creatively: rational skills and the often neglected aesthetic competencies.

Fifth, there is an emerging specialty within facilitation, referred to as "visual practitioners" – facilitators who capture ideas and synthesize conversations on large paper, creating a colorful mural from words and images. There are diverse styles, and practitioners have coined many names to identify and differentiate their work: graphic recording, graphic facilitation, reflective graphics, mindscaping, visual thinking, information architects, visual synthesis, graphic translation, group graphics, and ideation specialists (see the International Forum of Visual Practitioners Web Site: http://www.hnl-consulting.com/ifvp.html).

Conclusion

The examples provided in this manuscript suggest that the use of aesthetic ways of knowing or arts-based learning has begun to grow, since Barnard (1940, p. xiv) called for managers to engage the aesthetic dimension of organizational life. Today there exists an emerging *theory* base within the interdisciplinary field of organizational studies and the growing sub-specialty of organizational aesthetics (e.g., Strati, 1999, 1992; Linstead & Höpfl, 2000). In addition, there is growing recognition of the *practice* of arts-based learning in organizations – the actual *doing* of arts-based learning in management education. Today, there is also a growing recognition for the need to adequately train arts-based learning practitioners. In the US, the California Institute of Integral Studies has recently announced a post-baccalaureate certificate program in "Expressive Arts Consulting and Education" (California Institute of Integral Studies, 2001), and in Europe, Arts & Business's Creative Forum has been presenting training for the arts-based trainer since 1998 (Arts & Business, 2001).

It should be noted that the growth in arts-based learning in management education is not confined to the United States. Many of the examples noted in this manuscript are from the United Kingdom (e.g., Sims & Doyle, 1994; Praxis:

The Centre for Developing Personal Effectiveness, 2001), as well as Australia (e.g., Brearley, 2000), and New Zealand (e.g., Barry, 1994, 1996). In addition, the heavily European-influenced (e.g., Strati, Linstead, Höpfl) theoretical base of organizational aesthetics continues to inform the practice of arts-based learning. Thus, this does not appear to be a US-centered phenomenon, with examples found throughout Europe and Australia/New Zealand. As sharing and documentation of arts-based learning practices continues, we will likely find that arts-based learning is not the domain of one national culture; but instead, we will find that arts-based learning allows us to cross the boundaries of nations and cultures.

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Value Priorities of HRD Scholars and Practitioners

Reid Bates
Louisiana State University

Hsin Chih Chen
Tim Hatcher
University of Louisville

This study identifies, describes and measures a set of six HRD values that reflect two value facets (locus of HRD influence and HRD outcomes) and a seventh value that relates to a perceived normative component inherent in all HRD activity. Results indicated the value scales measured the individual value priorities of HRD scholars and practitioners and that these value priorities varied considerably. Suggestions for future research are offered.

Keywords: HRD Values, HRD Goals

HRD has been characterized as a field in search of itself (Watkins, 1989) and a good deal of literature has been published in the last decade aimed at defining the profession or describing what HRD is or should be. In spite of the fervent discourse, little has been accomplished in terms of generating consensus or moving the field toward an answer to these fundamental questions. It is, as Ruona and Lynham (1999, p. 215) have pointed out,

> . . . a conversation having us – that is, . . . a conversation that is ongoing and becomes the prominent focus such that little else actually happens except the having of the conversation. Very few new thoughts are generated, positions are defended, tradition weighs heavy, and very little progress is made in understanding and creating new meaning.

It is noteworthy that, despite this state of affairs, scant research has been done to more fully understand the underlying drivers of the debate. Some valuable work has been done documenting definitions of HRD (Weinberger, 1998; Mclean & Mclean, 2001), articulating different perspectives on the practice of HRD (Dirkx, 1996; Watkins, 1998), and describing the core beliefs of some leading HRD scholars (Ruona, 2000a). However, nothing has been done to uncover and understand the foundation from which these competing definitions, modes of practice, or philosophies emerge. This paper takes the perspective that to fully interpret the discourse surrounding competing definitions, practices, and beliefs about HRD we must first gain some understanding of the values that guide the HRD process. Values are the relatively enduring evaluative criteria or standards that HRD professionals use to make decisions about how the HRD process should happen now or in the future. Values thus represent normative statements describing the ideal state of the HRD process. Discovering and understanding these values is important because they influence the beliefs and attitudes that HRD professionals have about the development of human resources and help form the basis for decision making about individual actions or activities within the HRD process.

The Importance of Values

Values have occupied a central place in the analysis of work systems and have become an increasingly interesting and important area of research in management, organizational behavior, social psychology, ethics and other fields of study (e.g., Argyris & Schon,1982; Kahle, 1996; Schwartz, 1996). A fundamental rationale for this research is the notion that values can provide potentially powerful explanations of behavior. For example, values have been applied to account for the productivity of nations (Hofstede, 1980), the behavior of organization (Munson & Posner, 1980), and the performance of teams (Maznevski, & Peterson, 1997). In addition, a key to understanding most theories of individual work motivation centers on the goals or desired outcomes around which people organize their actions and cognitions. These theories assert that when goals or outcomes are achieved, they contribute directly to the satisfaction of certain values, values that can and do vary from individual to individual.

Elements can be conceived of as falling within the value domain if they provide a basis for assigning importance to a goal or behavior. In this sense, values represent "a broad tendency to prefer certain states of affairs over others" (Hofstede, 1980, p. 19) and, in effect, describe how an individual feels the world should work or how

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he/she would like it to work. Values thus provide standards for conduct and behavioral guides capable of transcending specific situations (Schwartz, 1992).

It is important to note that values are qualitatively different than attitudes. Attitudes address how individuals feel about a specific situation, condition, or event which predisposes them to respond in some manner (Rokeach, 1972). Values on the other hand are abstract preferences that reflect the state of affairs an individual prefers or thinks is more important. In a survey, for example, 'how satisfied are you with your career opportunities?' is an attitude question, but 'how important should it be for to you to have career opportunities? is a value question. Research has empirically shown that attitudes and values are different constructs not only in the mind of researchers, but also in the mind of respondents (Hofstede, 1998).

According to value theory (Rokeach & Ball-Rokeach, 1989; Schwartz & Bilsky, 1990) values are important because they tend to be structured and stable over time. That is, values are acquired and hierarchically organized to become part of a relatively enduring system. The structure of value systems emerges out of the social and psychological conflicts that accompany the expression of values through action (Rokeach, 1973). For example, actions aimed at improving job-specific performance may conflict with the creation of meaningful work: using the HRD process to maximize individual work outcomes may preclude actions aimed at enabling individuals to fulfill important inner needs through work. Thus, the total pattern of conflicts and harmonies among value priorities produces a structure for value systems (Schwartz, 1994). Value structures provide individuals with an ordered framework for resolving conflicts and making decisions. It is through their influence on decision-making that variations in value structures motivate individual behavior and affect specific actions. For example, an HRD professional who values individual learning as a top priority is motivated to be help others learn, derives satisfaction from increasing learning, and fulfills a personal need when being so engaged. The structure of values may therefore be used to understand how potential behaviors may be ordered in a given situation.

Research has in fact linked values to a wide range of individual behavior including participation in civil rights activities (Rokeach, 1973), personal doing (Levy, 1990), job search, safety behavior, and absence (Judge & Bretz, 1992) to name a few. However, the link between values and behavior is dynamic, complex and not fully understood. Value research has tended to take too narrow a view of this link, ignoring antecedent and intervening variables, and generally viewing the relationship between values and behavior as simple and direct. The failure to study values in the context of other variables is seen by some as the primary reason this research has not generally shown a robust effect between values and behavior (Shrum & McCarty, 1997). It is increasingly recognized that to fully understand the values-behavior relationship research must include potentially important antecedents such as age, education, gender, or income (McCarty & Shrum, 1993a), mediators such as attitudes (Homer & Kahle, 1988) or individual differences (Shrum & McCarty, 1992), and moderators including situational factors as well as the relationship among values themselves (McCarty & Shrum, 1993b).

Purpose of Research

This research is exploratory in nature and represents an initial effort to identify the underlying values about the HRD process held by HRD professionals. Our goal was to create a quantifiable description of how HRD scholars (students, academicians and researchers), and practitioners believe the HRD process should be viewed. Rather than investigate values in general, we were interested in specific individual values as they relate to the HRD process in organizations. An explicit focus of this nature has been referred to as a specific frame as opposed to a general frame (Wilkins & Dyer, 1988). It is hoped that this research will provide greater insight into the ongoing debate about what HRD should be and provide a basis for future research aimed at a more complete understanding of both the philosophy and practice of HRD.

Methodology

To analyze the HRD values domain systematically, an attempt was made to define its essential facets. Facet theory defines facets as "characteristic components of relevant variables . . . that can be used to formulate a definition of a construct because . . . each facet reflects an essential component of a content universe of variable that depicts the construct" (Dancer, 1990, p. 367). Facets are hypothesized elements representing semantic or perceptual properties that distinguish the basic components of variables and provide a frame and approach for measuring a content domain (Edmundson, Koch, & Silverman, 1993). One means of identifying and characterizing value facets is through content analysis of cultural products (Schwartz, 1992). Therefore the identification and classification of HRD values in this study was based on an extensive content analysis of the HRD research and literature representing what is recognized as the three fundamental philosophies about the HRD process (the learning, performance, and

spirituality of work philosophies) (Bates, Hatcher, Holton, & Chalofsky, 2001). Two basic facets were identified as representing the content domain of HRD values: HRD outcomes and locus of HRD influence. Six values emerged from the matrix of these two facets: creating empowering work (CEW), building caring organizations (BCO), building competence through learning (BCTL), creating learning systems (CLS), improving job-specific performance (IJSP), and meeting organizational goals (MOG). The facets and values are shown in Figure 1 along with sample items for each value scale. A seventh value, macro HRD goal (MG), was also identified. This value was seen as distinct from the two primary facets and is described below.

Facet A: HRD Outcomes. A variety of outcomes are attainable from the HRD process. In general, these are reflected in three fundamental outcome domains: meaning of work, learning, and performance. Meaning of work outcomes emphasizes processes that empower and enable individuals to create work that is personally meaningful and that fulfills important emotional and social needs. Learning outcomes emphasize increases in the long-term, work-related learning capacity of individuals, groups and organizations through the development and application of

Figure 1. HRD Value Matrix with Sample Items

		Facet A: HRD Outcomes		
		Meaning	Learning	Performance
Facet B: Locus of Influence	Individual	Creating Empowering Work (CEW) • *HRD should create workplaces that enable people to fulfill important inner needs.*	Building Competence Through Learning (BCTL) • *HRD's focus should be on building individual competence through learning.*	Improving Job-Specific Performance (IJSP) • *HRD activities should enable people to meet specific job-related performance requirements.*
	Organization	Building Caring Organizations (BCO) • *A key goal for HRD should be to build a culture of trust and openness in organizations.*	Creating Learning Systems (CLS) • *The creation of effective learning systems should be the most important goals for HRD.*	Meeting Organizational Goals (MOG) • *HRD's goal should be to improve organizational performance.*

learning-based interventions for purpose of optimizing human and organizational growth and effectiveness (Chalofsky, 1992; Watkins, 1989). Outcomes in the performance domain focus on those elements of work behavior that directly advance the mission of the work system in which those behaviors are embedded. Performance outcomes are work-system specific and although other outcomes can be nurtured and respected these are secondary to a core focus on mission-related performance. A work system is defined as an interdependent, organized architecture of human activity directed toward the accomplishment of a valued goal or outcome. It is a more inclusive construct than organization and is thought to better reflect the range of HRD activity. Conceptually, the HRD process can be exerted at multiple levels in a work system.

Facet B: Locus of Influence. The second facet concerns the locus of influence of the HRD process and is seen as cutting across HRD outcomes. Locus of influence refers to the point in work systems that the HRD process is applied. The locus of influence elements that emerged in this analysis reflect two classifications: individual influence and organization influence. Individual influence refers to HRD processes directed at meeting the needs of individuals performing in a work system. Organization influence refers to HRD processes directed at meeting the design, structure, management, and process needs of a work system.

Macro HRD Goal. A seventh value, macro HRD goal, emerged independent of the facets identified above. This value relates to what many see as the normative component that should be explicitly recognized as inherent in all human resource development activity. As a value, the macro HRD goal makes explicit the understanding that the propriety of different HRD objectives must be evaluated against an acknowledged overarching criterion. This criterion extends beyond HRD activities in any specific work system and reinforces the idea that improvement, a core theme in all definitions of HRD, can no longer be equated simply with economic growth, productivity, or shareholder return. It also underscores the necessity of recognizing that there are multiple paths of improvement that ultimately can only be evaluated with reference to larger social, ecological, political, cultural, and economic considerations. Examples of items used to measure this value include "HRD should have a responsibility for human development that goes beyond organizational boundaries" and " HRD should work to build healthy relationships between an organization and the external social, cultural, and ecological environment".

Instrument

Data collection in this study employed the use of a standard paper and pencil survey. Items on the survey were worded in a normative manner (e.g., HRD should support and accelerate individual learning) and designed specifically to tap values. Respondents were asked to rate the extent to which they believed the normative statements should be used to guide practice. A five-point Likert-type scale was used with anchors ranging from 1 (never or almost never) to 5 (always or almost always).

Subjects

The sampling frame of this study consisted of HRD educators, researchers, practitioners, and students in HRD programs of study who are members of AHRD, who attended the 2001 AHRD conference, or who have been invited to participate in this study. Respondents in the data set reported here were provided a paper and pencil survey and asked to return it to the authors by mail. Participation in this study was voluntary and as of this writing 84 responses have been collected. Of these, 64 % were female and 36 % were male. In terms of age, 31 % of the respondents were 35 or younger, 64 % were between 36 and 55, and five percent were over 56 years of age. Respondents reported an average of 21 years of formal education counting their first year of formal education as a child. About 39% of respondents were classified as HRD scholars (instructors, professors, or researchers in HRD programs in colleges or universities), 53% as HRD practitioners, and eight percent as students in graduate or undergraduate HRD or training and development programs.

Results

Scale reliabilities ranged from .60 to .89 and can be considered in the acceptable range for early scale development. Scale means for the sample range from a high of 4.05 for building competence through learning (BCTL) to a low of 3.02 for the macro HRD goal (MG). When viewed as an aggregate, the scale means appear to fall into three hierarchical value groupings. A high group consisted of two values, BCTL (⊠ = 4.05) and CLS (⊠ = 3.90); a second mid-range constellation that included CEW (⊠ =3.65), IJSP (⊠ =3.53), and MOG (⊠ =3.42): and a third group comprised of BCO (⊠ =3.21) and MG (⊠ = 3.02). Scale means and reliabilities can be found in Table 1.

Examination of the value scale intercorrelations (see Table 2) yielded several important findings. First, the low to moderate level of intercorrelations between the value scales in this study strongly suggests the scales are measuring qualitatively different values. Second, examination of this data showed several interesting intercorrelations. For example, the significant correlation between MG and CEW ($r = .61$, $p \leq .05$) and BCO ($r = .55$, $p \leq .05$) suggests that individuals who rated meaning-related values (CEW, BCO) highly also believed that HRD should have a overarching normative goal as a guiding value. Examination of the performance outcome value elements (IJSP and MOG) and their relationships with other value scales shows that the MG scale is negatively correlated with both IJSP ($r = -.29$, $p \leq .05$) and MOG ($r = -.23$, $p \leq .05$) scales. This suggests that individuals who believe performance outcome values are the most important values to guide the HRD process do not give high priority to an overarching normative goal as a guiding value. In addition, BCO and CEW were negatively related to both performance elements (for IJSP $r = -.28$, and $r = -.28$, $p \leq .05$; for MOG, $r = -.24$, $p \leq .05$ and .13, ns). This indicates individuals who believe that performance outcome- related values should be high priority values to lead the HRD process also give meaning-related values much lower priority.

Table 1. *Scale Reliabilities, Means and Standard Deviations*

					Male		Female		Scholar		Practitioner	
	∀	N	☒	SD	☒	SD	☒	SD	☒	SD	☒	SD
BCTL	.64	83	4.05	.55	4.03	.59	4.02	.53	4.22	.42	3.87	.61
CLS	.78	83	3.90	.69	3.93	.73	3.87	.67	4.10	.59	3.77	.72
CEW	.83	83	3.65	.71	3.65	.84	3.62	.64	3.90	.62	3.42	.75
IJSP	.64	83	3.53	.63	3.46	.66	3.56	.61	3.36	.60	3.73	.62
MOG	.81	81	3.42	.71	3.32	.67	3.42	.73	3.33	.65	3.46	.78
BCO	.60	81	3.21	.73	3.35	.84	3.11	.66	3.44	.71	3.07	.70
MG	.89	81	3.02	.98	2.93	.99	3.06	.97	3.32	1.04	2.71	.84

BCTL = Building Competence Through Learning CLS = Creating Learning Systems CEW = Creating Empowering Work IJSP = Improving Job-Specific Performance MOG = Meeting Organizational Goals BCO = Building Caring Organizations MG = Macro HRD Goal

Table 2. *Scale Intercorrelations*

	CEW	BCO	BCTL	CLS	IJSP	MOG	MG
CEW	--						
BCO	.65*	--					
BCTL	.53*	.42*	--				
CLS	.37*	.28*	.63*	--			
IJSP	-.28*	-.28*	.03	.26*	--		
MOG	-.13	-.24*	.12	.39*	.58*	--	
MG	.61*	.55*	.31*	.11	-.29*	-.23*	--

* $p \leq .05$

Multivariate analysis of variance (MANOVA) was used to examine differences in HRD value priorities by gender and job classification. The job classifications of interest in this study included three categories: students (individuals enrolled in graduate or undergraduate HRD or training and development programs); scholars (instructors, professors or researchers working in colleges or universities); and HRD practitioners (those engaged in the full or part time practice of HRD). For analysis purposes, because of the relatively small number of students in the sample this category of respondents was combined with instructors, professors, or researchers to form a single subset titled scholars. Although analysis showed no significant differences in HRD value ratings between genders (Wilks Lambda =. 61, F =. 1020.26), it did indicate some significant differences by job classification (Wilks Lambda =. 001, F =. 77). The tests of between-subjects effects showed significant differences between scholars and practitioners in ratings of all values except MOG (p-values for CEW, BCO, BCTL, CLS, IJSP, and MG were .01, .04, .01, .04, .01, and .01 respectively).

A final analysis examined the relative mean ratings of values by gender, job classification, and across the sample as a whole (see Table 3). Analysis showed that the highest percentage of individuals rated learning-related values (BCTL & CLS) as those most important in guiding the HRD process. Thirty-four percent of the sample ranked BCTL highest and 30% ranked CLS highest in terms of mean rating. On the other hand, it is interesting to

Table 3. *Top Ranked Values by Individuals, Gender, and Job Classification*

	By Individuals		By Gender				By Job Classification			
			Male		Female		Scholar		Practitioner	
Value	N*	%	N	%	N	%	N	%	N	%
BCTL	24	34	10	37	14	33	12	40	10	29
CLS	21	30	9	33	12	28	11	37	10	29
CEW	8	11	4	15	4	9	3	10	5	14
MG	6	9	1	4	5	12	3	10	1	3
IJSP	5	7	1	4	4	9	--	--	5	14
MOG	4	6	1	4	3	7	--	--	3	9
BCO	2	3	1	4	1	2	1	3	1	3
Total**	70		27		43		30		35	

N* = number of individuals who rated a specific value the highest of all values rated
Total** = Individuals with two or more values with equal top ratings are not included in this table

note that nine percent of the sample rated the macro HRD goal (MG) highest. In addition, a larger percentage of females than males felt that MG was the most important value that should guide the HRD process (12% versus 4%).

Overall MG had the highest mean rating for a larger percentage of individuals than did IJSP (7%), MOG (5%), and BCO (2.86%). This despite the fact that the MG scale received lowest mean rating of all the value scales.

In terms of job classification, the ranking pattern of four of the value scales (BCTL, CLS, CEW, and BCO) is comparable in terms of the percentage of scholars and practitioners ranking each the highest. One of the most striking findings is that although nearly a quarter (23%) of practitioners gave either IJSP or MOG the highest mean ratings, none of the scholars gave either of these performance outcome-related values the highest mean rating. It is also interesting to note that a substantially higher percentage of scholars (10%) rated MG as the value that should always or almost always guide the HRD process while only 3% of practitioners rated it so. These findings are consistent with value theory and strongly suggest that, while the domain of HRD values may be the same for scholars and practitioners, the structure and relative priority of those values may vary based on the differing challenges individuals face in the expression of those values.

Conclusions

At least two important conclusions can be drawn from this research. First, this research demonstrates that HRD professionals operate from a structured set of values that can be described and measured. For example, this study suggests that individuals who place high priority on meaning-related values (CEW, BCO) also tend to give high priority to a normative, macro-level goal (MG) as a guiding value. On the other hand, individuals who place high priority on performance outcome-related values (IJSP, MOG) do not give high priority to a normative, macro-level goal (MG) as a guiding value nor do they tend to rate learning-related values highly. Understanding value structures such as these is important because they represent enduring evaluative standards that individual HRD professionals use to make decisions about how the HRD process should work. Describing and measuring such structures can give insight into both the actions that individuals undertake in the HRD process as well as the beliefs and attitudes that HRD professionals have about the development of human resources.

Second, the data indicate that the measures used in this study tapped individual value priorities rather than a set of normatively approved values of HRD professionals as a group. This is an important conclusion because, to the extent that values represent group ideals, individuals may be inclined to report values that reflect group norms rather than personal priorities. If this were the case, then the values and value priorities identified in this study would better be understood as cultural conventions of the HRD profession rather than reflective of individual motivations and beliefs.

However, our focus and interest in this study was identifying and describing the personal value priorities of HRD professionals. We believe the data provide evidence that we have been successful in this endeavor. For instance, it is clear from this research that the value priorities of individual HRD professionals vary considerably. Not only did each of the seven values measured received one or more 'top rankings', at most only about one-third of the individuals in this sample were in agreement about any one specific value as that which should be most important in guiding the HRD process. In addition, a number of findings in this study suggest that individual variation in value priorities was associated with individual differences. For example, a higher percentage of women rated MG as a top priority than did men; a substantial percentage of scholars (10%) rated MG as the top priority while only a small proportion of practitioners did (3%); and none of the scholars in this study rated either of the performance-related values (IJSP or MOG) as the top priority whereas nearly a quarter of practitioners gave one of these values the top ranking. If these differences were due to measurement error or error in the respondent's perception of cultural beliefs then it is unlikely that these kinds of systematic differences would have emerged.

Because this study tapped individual value priorities, it would be misleading to draw conclusions from this data about the normative value structure for HRD. Although the descriptive and inferential statistics used in this study were used to characterize the value priorities and differences in this sample, we cannot use this data to conclude that these findings in any way represent the normative value structure of the HRD profession as a whole. In short, the values assessed in this study reflect individual priorities and it is not possible to derive the normative ideals of a larger group or culture from the average of individual responses (Schwartz, 1992).

How This Research Contributes to New Knowledge in HRD

It is perhaps true that "[a]s a profession, we have not done a very good job of working to identify who we are, what we stand for, and what we can [or more importantly should] do for those we serve" (Ruona, 2000b). If HRD is to make headway in determining what the driving goals of our practice should be or how we should define ourselves as a field of research and practice then some understanding of fundamental values driving the HRD process must be

reached. This research represents perhaps the first empirical attempt to identify a specific set of HRD values and to create a quantifiable description of how individual HRD professionals believe the ideal HRD process should be viewed.

One reason that HRD is viewed as a field in search of itself is that the roles and practices that HRD professionals develop and institutionalize vary widely. The rules that govern individual behavior in these roles and practices reflect an underlying set of core values. Even though espoused values (Hofstede, Neuijen, Ohayv, & Sanders, 1990) can differ from values in use (Posner, Kouzed, & Schmidt, 1985) we believe the identification of values in this study has helped to more fully illuminate the worldview from which individual HRD professionals operate and the standards framing individual research and practice.

This research also lays the foundation for future values-related research that could significantly contribute to the field of HRD. The values assessed in this research can be used to more fully understand individual differences in beliefs, attitudes, and organizational practices of HRD professionals. They also provide a means for investigating how values may affect the actual practice of HRD and how person or system factors might affect the values-behavior link. It may also be fruitful to use these measures to investigate how the individual value priorities of HRD professionals in an organization influence the perceived value of HRD or the expected outcomes from HRD. For example, questions about how other stakeholders in organizations (e.g., top management, line managers and supervisors, individual employees, trade unions, customers, etc.) respond to and interpret these values and how are these perceptions are related to the status and perceived value of HRD represent important future research questions.

Finally, it would be a mistake to accept the current findings as the final word on HRD values. The present data was drawn from a small sample of U.S. professionals, almost exclusively AHRD members. This clearly excluded a potentially large number of other HRD professionals, particularly those from other parts of the world. This is critical since research suggests that the definition of HRD varies "from one country to another, and the national differences are a crucial factor in determining the way in which HRD professional work" (Hillion & Mclean, 1997, p. 695). The clear implication is that the values underlying the role and process of HRD may be related to a country's cultural or national values, to the level of economic development, or to the point in the life cycle development of the field in any particular country (Mclean & Mclean, 2001). Consequently, the cross-national and cross-cultural study of HRD values may lead to the identification of additional values not included here.

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The Development of a Research Instrument to Compare Working Values Across Different Cultures—Based on Hofstede's VSM Questionnaire

Salwa Yousef Al-Sharqawi
Sally Anne Sambrook
University of Wales Bangor

This paper describes the exploratory research approach used to adapt Hofstede's questionnaire (Value Survey Module, VSM94) for use in a doctoral research project examining work values in public and private banks in Kuwait and replicating Hofstede's study of cultural dimensions. Drawing upon focus group and interview findings, 'Kuwaiti' values were identified and the original VSM questionnaire was adapted for use.

Keywords: Hofstede, Replication, Kuwait

This paper draws upon a doctoral research project, where the final aim is to replicate Hofstede's study. This suggests the use of Hofstede's instrument. However, the authors consider that the VSM needs to be looked at from a Kuwaiti perspective, to remove any 'western' bias. To address this, the approach followed was similar to that used in the development of the 'Chinese Value Survey' (CVS) by Michael Bond (Chinese Culture Connection, 1987). Bond consulted Chinese social scientists for a list of values important to the Chinese, and then developed a questionnaire incorporating these values. Similarly, when consulted about using the VSM to investigate Kuwaiti culture, Hofstede (personal interview 07 May 2000) highlighted the need to incorporate specific values, recommending the use of focus groups. These values could then be incorporated into a contextually adapted questionnaire. Thus the basic research tool had to be evaluated for applicability and suitability to Kuwait. The focus group and interview techniques were used to identify these values. These were incorporated into a new questionnaire. This paper details the process of *modifying* the VSM94 for Kuwait and presents the results of the focus group and interviews.

The Issue under Study

Beginning in 1966, Geert Hofstede (1980) conducted a research to explore cultural differences. He derived four cultural dimensions: individualism, masculinity, power distance, and uncertainty avoidance. Theoretically, these could explain cross-cultural behavioral differences. The issue is if the questionnaire itself is culture-free, that it does not deal with culture-specific values. Exploring differences and similarities among cultures is problematic, mainly because cross-cultural research can be limited by the 'made in America' theories, where there is an indiscriminate export of a theory to a cultural context where its application is inappropriate. To address this, Bond *et al* (1987) developed the Chinese Value Survey. Turning to the Kuwaiti context, and wary of any cultural bias, the authors of this study examined a Kuwaiti sample to assess if the VSM in its present form could be applied to Kuwait and then be used to replicate Hofstede's study in Kuwait. However, initial findings suggested that the VSM needed to be adapted to incorporate values identified as being important to Kuwaitis. This paper presents these findings.

The Theoretical Framework of the Study

This paper is an investigation of Kuwaiti work values. Once identified, it is then possible to determine how these score on a series of cultural dimensions. Thus, it is first necessary to consider what we mean by culture. A human society is made of individuals, joined by relationships and codes of conduct that dictate actions and behaviors. These behaviors are commonly referred to as the social or national 'culture'. Schein describes culture as 'a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems,' (1997, p. 12). Hofstede defines culture as the "collective programming of the mind that distinguishes the members of one group of people from another" (2001, p. 9). To study and compare cultures, researchers need conceptual frameworks to understand patterns and practices. Hofstede says that such frameworks must 'consist of empirically verifiable, more or less independent dimensions on

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which cultures can be meaningfully ordered' (1980, p. 36), such as 'values' and 'culture'.
At the center of any society is the 'value system' (Hofstede, 2001, p. 11) adopted by the majority of the population, originating in social institutions like family, education, politics, history, etc. Cultural changes come from forces of nature and forces of human beings. Hofstede (2001) points out that individual differences within the same culture may be due to age (values shift with age), generation (values in young people of a certain period and continuing over the lifetime) and / or zeitgeist (drastic system changes that cause total value shifts). The following model shows the formation of culture. The central proposition is that socio-political environment is responsible for shaping the culture. Any environmental modifications reflect in the culture and individual behaviour.

Table 1. *The Formation of Culture*

FORCES OF NATURE (Direction of effect ↓)					
SOCIO-POLITICAL FACTORS					Culture, Attitudes, Values, Behaviors in society
- Government	- Legal system	- Economic conditions	- Trade	→	
- Level of Technology	- Religion	- Media	- Health		
- Education System	- Parenting / upbringing	- Urbanization	- History		

Interested in identifying possible cultural differences, Hofstede administered the VSM in 20 languages to 116,000 IBM employees in 50 countries. He analyzed the data such that he could compare results across countries. From a factor analysis of cultural averages, his study proposed four cultural dimensions each located on a 'continuum ranging from high to low, along which nations could be also placed' (Tayeb, 2001, p. 92). A fifth dimension was added later. Following are the definitions of the five dimensions of national culture:

- Power Distance – The extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally (Hofstede, 2001, p. 98).
- Individualism – This stands for a society in which the ties between individuals are loose. Everyone is expected to look after him/herself and her/his immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people' s lifetimes continue to protect them in exchange for unquestioning loyalty (Hofstede, 2001, p. 225).
- Masculinity – This stands for a society in which social gender roles are clearly distinct. Men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap. Both men and women are supposed to be modest, tender, and concerned with the quality of life (Hofstede, 2001, p. 297).
- Uncertainty Avoidance – The extent to which the members of a culture feel threatened by uncertain or unknown situations (Hofstede, 2001, p. 161).
- Long Term Orientation – This stands for the fostering of virtues oriented towards future rewards, in particular, perseverance and thrift. Its opposite pole, Short Term Orientation, stands for the fostering of virtues related to the past and present, in particular, respect for tradition, preservation of 'face' and fulfilling social obligations (Hofstede, 2001, p. 359). Initially identified as Confucian Work Dynamism, this dimension was added after the 'Chinese Value Survey' (CVS) by Michael Bond (Chinese Culture Connection, 1987).

To validate his findings, Hofstede (2001) later used nine geographic, demographic, and economic indicators: national wealth, past and present economic growth, geographic latitude, population size, population growth, population density, organizational size and relative organizational size (to the total inhabitants of the country). This correlation lead to a suggested causal chain for the origin of national differences. Further cross-cultural research has been conducted based on Hofstede's methods. Three main studies are briefly reviewed below.

Michael Bond and the Chinese Culture Connection (1987): Bond constructed a Sinocentric version of Hofstede's study and demonstrated a Western bias in the VSM. Introducing a deliberate eastern bias in the Chinese Value Survey (CVS) questionnaire, Bond studied values of students in 23 countries. Bond's results replicated Power distance, Individualism, and Masculinity, but failed to find Uncertainty Avoidance, and instead discovered a fifth dimension: Confucian Dynamism (now called Long-tern Orientation), that was rooted in Confucian teachings.

Shalom Schwartz's country level analysis (1987, 1990, 1992, 1994): Schwartz *et al.* (Schwartz, 1992, 1994; Schwartz & Bilsky, 1987, 1990) proposed the universal structure of value theory that clusters cultures into groups and explains differences and similarities. Schwartz first identified mankind's fundamental issues, and then found value dimensions. He identified 3 fundamental biological, social and survival needs. Then 56 values were identified and students and schoolteachers in 50 countries indicated the extent to which these values had guided them.

Though more numerous, Schwartz's work is a refinement of Hofstede's research. There are values like stimulation and hedonism (similar to Individualism) and opposites like security, tradition, and conformity (similar to Collectivism).

Charles Hampden-Turner & Fons Trompenaars (1993, 1994): Trompenaars and Hampden-Turner identified five value orientations: universalism/particularism, individualism/collectivism, neutral/emotional (replaced with equality/hierarchy, 1994), specific/diffuse and value achievement/ascription. Additionally there are attitudes to time and attitudes to the environment. The universalism/particularism orientation (preference for rules rather than relationships) can be interpreted as part of both Uncertainty Avoidance and Individualism. The individualism /collectivism orientation is identical to Hofstede's individualism. The neutral/emotional orientation (range of feelings expressed) appears to be part of Masculinity. The achievement/ascription orientation (how status is accorded) is linked to Power Distance. The specific/ diffuse orientation (range of involvement) cannot be directly linked.

Research Questions or Propositions

Having reviewed these studies, it can be suggested that simply 'applying' research instruments developed in one cultural context to another will fail to address cultural bias. This highlights the inadequacy of Western frameworks to analyze non-Western cultures. Thus, the authors had to establish a research instrument that would 'fit' the Kuwaiti context. It was considered necessary to introduce a 'Kuwaiti' bias to the VSM, by adding questions based on values that are important to the Kuwaitis, and shifting the focus of the VSM to Kuwait. This raises methodological and research questions. Can an instrument designed in one cultural context be applied to another? Would the results be the same, different or altogether incorrect as the measures are wrong? Would it be possible to identify a new set of values specific for Kuwait, by modifying VSM94?

Methodology

Kuwait provides a unique context in which to examine work values. Kuwait, within the Arab world and Asia, is far from the European and North American base from where most of the commonly held theories arise.

- *Geographical and eco-political aspects:* Kuwait is located in the Middle East, bordering the Persian Gulf, between Iraq and Saudi Arabia, occupying 17,820 sq. km, at 29° 30′ N, 45° 45′ E latitude (CIA, 2001). The terrain is flat to slightly undulating desert plain with intensely hot summers and short, cool winters. Kuwait was a fishing, pearling and trading community on the Europe - India trade route, before oil was discovered in 1938. The 1960-70s saw rapid development. Kuwait has about 10% of the world's oil reserves. Kuwait is a quasi-hereditary emirate. The ruler, the Amir, is chosen by the members of the ruling family from amongst themselves. Islam is the state religion. Arabic is the state language, but English is widely spoken.
- *Demographic structure:* Kuwait's population is about 2,041,961 (CIA, 2001. July 2001 est.), of which 1,159,913 are non-nationals, mainly Egyptians and Indians. The population growth rate is about 3.38% (CIA, 2001. 2001 est.). The population density (per sq. km) is 107.4 (Hutchinson Family Encyclopedia, 2000. 1998 est.). Of the labor force only 16% is Kuwaiti, of which 92% works in the public sector. 32% of the Kuwaiti labor force works in the public and private banks (Institute of Banking Studies, 1994).
- *Role of the family:* In Kuwait, the family is an important cultural influence. Traditionally, families were a single, large, extended economic unit. Often male children would continue to live in the family home, with their own families. The Oil Era and urbanization lead to nuclear, double income families. This resulted in dependence on domestic help. This, though not unique in itself, had peculiar effects on Kuwait.
- *Effects of the dependence on domestic help:* In 1997, 62% of all Kuwaiti households had at least one South East Asian female domestic worker (Central Statistics Office, 1998). This greatly altered the values and behaviors of young Kuwaitis. They grew accustomed to having someone providing services to them. 'Work' and the 'need to work' became synonymous with these workers. Young Kuwaitis feel no need to work for a living since their family and the government is obliged to provide for them. (Higher Planning Council, 1991)
- *Welfare System and Social Security Scheme:* The government' s cradle-to-grave welfare system provides Kuwaitis with free housing, health, and education This has created a group of individuals who rely on social aid and feel no need to earn a living. A divorced woman for example, who can work, may choose not to work as she gets social aid. Additionally under the Social Security Scheme, male Kuwaitis can retire after 20 years of service (15 years for females) (Public Authority for Social Security, 1995). Many choose this option.
- *Work Ethics:* The private sector is not appealing as most Kuwaitis prefer the relaxed and guaranteed employment of the public sector. Many in Kuwait's post-Oil generation grew up perceiving work as a form of social gatherings.

There is apathy to work, low productivity, lack of commitment, and a resistance to discipline.

- *Emphasis on Status and Hierarchy:* In Kuwaiti society status distinctions play a vital role in public and private life. Birth and clan are determinants of the status and prestige of a particular person. Very often, hierarchy or legalities are over ridden by family connections or clan affiliations (*wasta* = Arabic for 'reference' – literally).

Selection of Survey Content and Subject

It was important to identify and isolate these 'Kuwaiti' values, to modify the VSM94. As a first step, the research process included a focus group. This method was chosen as it allows maximum interaction and cross-questioning and it is possible to explore opinions, attitudes, and beliefs. To support this, interviews were conducted with job applicants. In addition, to augment the findings of the focus group and interviews, human resource managers were interviewed as well. The questions for the focus group and the interviews were based on a consultation that the Kuwaiti author had had with Kuwaiti colleagues, from various functional areas such as marketing, finance, and human resources. These individuals first listed values that they felt were important for Kuwaitis. In this way, the Kuwaiti author collected a set of 'Kuwait values' . Based on this she prepared a set of questions that when asked to a sample of Kuwaitis would hopefully yield the same answers as in the list. The questions were first developed in English and translated independently by two bilingual persons. An acquaintance of the Kuwaiti author, Essa Al-Jassem, former Research and Development Director, Ministry of Education, guided in re-writing the questions. He also circulated the questions to his 'bilingual' acquaintances for back-translation and content equivalence.

Table 2. *Demographic Breakdowns of the 33 Focus Group and 12 KuwaitiInterview Participants*

Age group (years)	Focus group	Interviews		Gender	Focus group	Interviews
22-24	9	9		Male	23	8
25-29	9	3		Female	10	4
30-34	2	-				
35-40	6	-				
41-45	2	-				
45+	5	-				

Education	Focus group	Interviews		*Place of education*	Focus group	Interviews
Secondary School	4	-		Kuwait	27	12
High School	6	4		United States	5	-
2 year diploma after high school	10	5		Egypt	1	-
University	12	3				
Master	1	-				

Sector of employment	Focus group	Interviews		*Work experience (years)*	Focus group	Interviews
Public sector employee	20	1		0-1	6	6
Private sector employee	10	5		2-3	6	4
Recent graduate	2	6		4-5	3	1
Retired	1	-		6-10	5	1
				11-15	2	-
				16-20	5	-
				21-25	3	-
				26+	3	-

The Focus Group Session – Sampling and Data Collection

A focus group of 33 participants was convened on July 23, 2001. To assemble the participants, the snowballing technique used. The Kuwaiti author asked friends and acquaintances to invite their friends and acquaintances and so forth. The main criterion was that the participants had to be employed, retired or looking for a job. Students and housewives were not included. Before the session began, the participants were briefed about the project. Flipcharts

were used during the interactive session to ensure the clarity of the questions. Notes were taken, and the session was audio-recorded and later transcribed. In the focus group, four main questions were asked.

1. What does work mean to you? What are you trying to achieve through work?
2. What were you trying to achieve in the beginning of your career and has it changed now? If so, how?
3. What are your expectations from your organization, colleagues, and superiors?
4. What are the factors that can make you change your job for another?

To validate these answers, twelve job applicants were later interviewed separately, with the same questions.

The Interviews

Four human resources managers were interviewed (3 - private banks and 1 - public bank). They were asked similar questions as the focus group to help confirm the former answers. Specific questions about the private and public sector were asked as this issue is peculiar to Kuwait.

1. Why Kuwaitis prefer the public sector over the private sector?
2. Why staff turnover rates are much higher in the private sector than the public sector?
3. What a job really meant for Kuwaitis?
4. What are Kuwaitis expectations from a job and the organization?

Key Findings

Focus Group Findings

1. *What does work mean to you? What are you trying to achieve through work?* Majority mentioned income as the reason for work. Others said that they worked to augment family income. Some worked to provide for material possessions like cars, etc and to meet community expectations. Socializing, networking, and building relationships through the job were specific purposes. Doing favors and obliging others, achieving 'power' by working in prestigious organizations and influencing decisions was another reasons. 'Self satisfaction' came in much later.
2. *What were you trying to achieve in the beginning of your career and has it changed now? If so, how?* Older participants said that they had been looking for 'achievement' while younger participants mentioned income.
3. What are your expectations from your organization, colleagues, and superiors? Most participants said that they wanted to work with very little pressure. For organizational expectations, some said that they expect jobs that allow adequate personal time. Flexible working hours were also welcome. Other expectations were getting long and frequent leaves. Some expected their company to follow Islamic percepts (mostly banks employees - Islam forbids interest/usury - and law firm employees -distortion of facts to plead a case is seen as deceit). Some wanted comfortable physical working conditions. Opportunity for on-job training or education with full scholarship had medium importance. Noticeably, very few mentioned what they would do or contribute to the organization or the country. Many said that they look for informal terms with their colleagues, after working hours as well. As for superiors many participants said that they did not welcome any criticism of their performance. It was seen that males did not mind working for a female boss, while females preferred a male superior.
4. *What are the factors that can make you change your job for another?* Majority said that the main factor would be the level of 'appreciation' given, most wanted to be pampered. Additionally, being consulted for day-to-day decisions was very important. Many said that the job title was important. A person is willing to work as a 'secretary' but wants the title of 'office manager'. The job is not important, the social acceptance of the job designation is. Career advancement came much later, although, this *must* be accompanied by an increase in income as well. Few mentioned that they would switch for jobs that offered new and international experiences.

Specific Demographic Correlations: Participants who were better educated, older and held higher managerial positions mentioned that 'achievement' was important for them. More older and experienced participants said that in the beginning of their career they were looking for 'achievement' and not money. On the other hand, younger participants said that they are trying to achieve a high level of income. It was also noticed that participants who were educated outside Kuwait were more focused on issues like training opportunities and self-satisfaction.

Interviews Findings

Job applicants were asked questions similar to the focus group. The outcomes were comparable.

From the interviews of the Human Resources managers, these observations were noted:

1) *Reasons for Kuwaitis' preference for the public sector over the private sector:* The main reasons were job security (no one can be 'fired'), high salaries, less work pressure, less demand for productivity, flexibility to leave the workplace for personal reasons (relaxed attendance rules), long annual leaves and generous retirement schemes.

2) *Reasons for high staff turnover rates for Kuwaitis in the private sector:* Services can be terminated for non-performance, there is demand for productivity with longer working hours and attendance regulations. These observations are supported by the results of a study by the Institute of Banking Studies (1994).

3) *What a job really meant for Kuwaitis:* In order of importance: Income, authority, networking and satisfaction.

4) *Kuwaitis' expectations from a job and the organization:* Kuwaitis give little and expect more. 'Expectations' include that the company must accept social and personal obligations. Kuwaitis expect *much* appreciation for doing their job and expect to be promoted faster. Kuwaitis are difficult to manage, as they resist authority and corrective criticism. Any coaching or remedial measures are unacceptable (Item responses available by contacting authors.)

Conclusions

From the focus group and interviews, it can be concluded that there appear to be distinct work values among Kuwaitis. The foremost observation is that there are cultural factors that the VSM is not equipped for. In principle, the VSM94 is transferable in totality. However, the question is how to address the cultural issues whose measurement is not provided for in the VSM. Many Kuwaiti values do not have equivalents in the VSM. This has implications for any research intended to replicate Hofstede's study. For example, the addition of questions to fine-tune the VSM to the sample under study has been done by Micheal Hoppe (1990). He used a questionnaire that had the IBM questions plus a section on organizational learning, and approached the alumni of the Salzburg Seminar, Austria, a cross section of international leaders from politics, business, art, and education. Out of the four dimensions, masculinity required different questions and computations (1998), implying that there was no single set of questions. Hofstede (2001) says that the ideal questions must be nationality dependent and mean the same to all society members. The VSM was developed for IBM in the 70s, meaning that questions have to be adapted to the intended respondents, situation, and period. For this purpose, 29 additional questions are proposed.

Translation and Content Equivalence. Having identified these additional work values, the new contextualised questionnaire was finalized in English to maintain closeness to the VSM and then it was translated into Arabic. Mr. Essa Al-Jassem assisted once again with the back-translation and content equivalence. The questionnaire was then pilot tested with 12 respondents to check the continuity and flow of questions. The questionnaire has been used in the main data collection phase with employees of public and private banks in Kuwait. The data analysis is in process.

Further Course of Action

Once the data is collected from this modified questionnaire the findings will be analyzed and used to modify Hofstede's value system to reflect Kuwaiti values. This next course of action is the aim of the thesis. Both the original VSM questions and the added questions will be treated according to Hofstede's methodology. It is only after the factor analysis that it will be clear which dimension the new questions align with, or if there is a new alignment. Reliability and validity analyses will be done *later*. This stage is the preliminary one.

How this knowledge contributes to new knowledge in HRD

Bond (1987) demonstrated the need to be cautious in generalizations. The key (methodological) conclusion from this study is that any research instrument has to be adapted for the local culture before application. This study reinforces the need to adapt 'generic' research instruments so that they are culturally relevant to investigate values within a specific context. Kuwait, excluded from Hofstede's research on account of small sample size, presents unique geographic, economic, demographic and political indicators for a study of cultural variations. This study contributes to existing knowledge of cross-cultural analysis by identifying work values in a previously unresearched context. The completion of this thesis will add to the countries already studied by Hofstede and others, and will serve as the benchmark and prepare ground for repeat surveys. This is mainly because a limited number of such studies have been done for Kuwait. A study by the Institute of Banking Studies (1994) on the high turnover among Kuwaitis in the private banking sector is worth reviewing. Among other issues, the study analyzed the social and educational characteristics of the sample, the reasons for resignation and the extent of satisfaction with the current job. It also

analyzed the extent to which the respondents said that they were able to achieve their goals through the new job.

Empirical findings from this thesis will also contribute to new knowledge in HRD by providing understanding of Kuwaiti work values. This can assist human resource practitioners in developing more culturally relevant HR practices, for instance, designing relevant interventions to change Kuwaiti orientations to work. The knowledge of the Kuwaiti culture and the dominant work values can be applied to training programs to increase motivation, and Kuwaiti policy makers can draft better methods to remedy the problems of low productivity in the native workforce. This thesis will also provide a platform for further research. Kuwait is a multi-ethnic, multi-cultural society. The current sample is the Kuwaitis in Kuwait. Similar studies can be conducted for the different residents of Kuwait, giving an insight into the work values of expatriates. Another question that can be answered is that would the Kuwaitis demonstrate similar values if they were an expatriate group working in the USA, UK or India.

All this will proceed to contribute categorically to new understandings of cultural work values and thus contribute to international developments in Human Resources Development.

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An Examination of the Viability of the Work Ethic Construct

Sharon S. Naquin
Elwood F. Holton III
Louisiana State University

This paper discusses the Protestant Work Ethic (PWE) literature and conducts exploratory and confirmatory factor analysis on leading composite measures of PWE constructs. Exploratory factor analysis results replicated those found in previous literature. However, confirmatory factor analysis, which had never been done in the literature, showed that the scales did not load on the PWE latent construct. Thus, it is recommended that PWE not be used in HRD research.

Keywords: Work Ethic, Dispositional Effects, Values

Employers frequently mention work ethic (also termed Protestant Work ethic or PWE) as a desirable characteristic of employees (Hill, 1992). HRD research has paid little attention to the work ethic construct. Thus, there are three primary purposes of this paper – to review the PWE literature as it relates to HRD; to use confirmatory factor analysis to test the dimensions of the work ethic construct, and to discuss the viability of this construct in future HRD related research. . The work ethic construct has not been tested using Confirmatory Factor Analysis (CFA) techniques. Previous work ethic exploratory factor analysis (EFA) techniques only serves to determine whether the data have separate common factors underlying the item responses. EFA does not establish whether those separate constructs load on a single, higher order construct. This requires either a CFA or a second order EFA.

Review of Related Literature

Countless researchers have offered definitions of the work ethic construct. Greenberg (1977), for instance, identifies work ethic as a personality construct, and Morrow (1983) defines the term as the extent to which a person believes in the importance of work itself. Depending on the specific conceptualization and measure chosen, ideas related to the importance of independence, self-sufficiency, frugality, paid employment, and explicit rejection of leisure are also part of the definition" (Morrow, 1993, p. 1). Other researchers extend their conceptualizations of the work ethic past the notion of intrinsic value and introduce personal accountability and responsibility for the work that an individual performs into the definition of work ethic (Cherrington, 1980; Colson and Eckerd, 1991; Yankelovich and Immerwahr, 1984).

There are other characteristics attributed to individuals with high levels of work ethic. As defined by Weber (1958), these principle aspects of PWE include: individualism (the assertion of one's uniqueness), asceticism (the renunciation of the comforts of societal in favor of an austere, self-disciplined lifestyle), and industriousness (assiduous work or study, diligently active). Of these, industriousness probably represents the most critical aspect of PWE (Wollack, Goodale, Witjing, and Smith, 1971). Furnham (1990b) provides more detailed descriptions of the characteristics associated with the construct. Some of these characteristics are a high internal locus of control (Furnham, 1987; Lied and Pritchard, 1976; Waters, Bathis, and Waters, 1975); conservative attitudes and beliefs (Furnham and Bland, 1982; Joe, 1974; MacDonald, 1971), individualistic attribution styles (Furnham, 1982b; Feather, 1984); and a high need for achievement (McClelland, 1961; Furnham, 1987). Furnham (1990a) also contends that high PWE scorers are independent-minded, competitive, and hard working.

Representing a set of values related to work, work ethic generally seems to refer to a commitment to work that is stronger than just providing a living (Barbash, 1983, Lenski, 1961). Thus, the PWE, according to Aldag and Brief (1975), Rim (1977), and Wannous (1974), also serves other functions – patterning and regularity of working hours, intrinsic work satisfaction, and role-identity with the task.

The concept of work ethic has also been defined for "an individual (or for a more or less homogeneous group of individuals) as a value or belief (or a set of values or beliefs) concerning the place of work in one's life that either (a) serves as a conscious guide to conduct or (b) or is simply implied in manifested attitudes and behavior" (Siegel, 1983, p. 28). This definition is an important one because it applies to a wide variety of groups: it is culture-free, neutral to a historical context, to location, and to nonwork interests. It is also "positive" as opposed to being "normative," and allows room "for all the composite work ethics that have been described or sponsored in a vast corpus of sociological, political, and religious literature – Protestant, Calvinistic, Puritan, Primitive, Christian,

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monastic, feudal, Talmudic, Buddhist, utopian, communist, etc" (Siegel, 1983, p. 28).

As the above definitions illustrate, there is no fixed definition of the construct. One of the primary reasons for this is the fact that work ethic is multidimensional and is associated with aspects of economic, political and social life. In this study, work ethic is considered to be a personal value. Regardless of the definition adopted, however, researchers generally agree that work as the core of a moral life is the central premise of the work ethic concept (McCracken and Falcon-Emmanuelli, 1994, p. 5). "Work makes people useful in a world of economic scarcity: It staves off the doubts and temptations that preyed on idleness; it opened the way to deserved wealth and status; it allowed one to put the impress of mind and skill on the material world" (Rodgers, 1978, p. 14).

Theoretical Foundations Of PWE. Regardless of the definition used to describe the term, researchers attribute the origin of the construct to sociologist Max Weber's (1958) PWE theory (i.e., Barbash, 1983). Weber's treatise maintained that the work ethic involved an entire philosophy of life (Cherrington, 1980), related business success to religious beliefs, and first introduced the concept of the Protestant Work Ethic. Weber wrote, "Labour must be performed as if it were an absolute end in itself, a calling" (1958, p. 62). According to Weber (1947), "the holder of the Protestant Ethic is committed to the values of hard work, to the work itself as an objective, and the work organization as the inevitable structure which those internalized values can be satisfied"(Kidron, 1978, p. 240).

The PWE construct emerged from Calvinistic and Quaker individualism and asceticism (Maccoby, 1983). Weber recognized this, and described the Calvinist tradition of frugality, hard work, conservatism, success and its contribution to capitalism (1904-1905, 1958). "Unlike the Lutheran view of a calling as one's fate that should be accepted with good grace, the Calvinistic-Puritan view demanded constant work at one's 'calling' as proof of one's faith and membership in God's elect. Citing the parable of the talents (Matthew 25), the Puritan was urged to prosper: ' You may labor to be rich for God, though not for the flesh or sin' (Maccoby, 1983, p. 183).

Though the origin of the concept had religious affiliations, the current conceptualization is much more a secularized construct (Hill and Petty, 1995). The underlying attitudes and beliefs that have contributed to and supported hard work have been incorporated into Western cultural mores and are no longer solely connected with a particular religious sect (Hill and Petty, 1995; Rodgers, 1978; Rose, 1985a). However, many of the characteristics associated with the construct are still applicable today.

Studies Relating To Work Ethic. Much of the research effort relating to work ethic have been focused on devising psychometrically sound measures of the PWE; examining the relationship between PWE beliefs and other work and non-work behavior; and investigating the relationship between the PWE beliefs and other individual difference measures of personality, values and social attitudes (Furnham, 1982b, 1983, 1984b, 1985, 1986, 1990). Furnham (1990a), for instance, content analyzed seven work ethic scales. He found that items from PWE fit into six possible categories: 1) work as an end in itself, 2) hard work and success, 3) leisure, 4) money/efficiency, 5) spiritual/religious, and 6) morals.

In a study designed to examine the relationship between work behavior and the PWE, Merrens and Garrett (1975) found that individuals with high PWE scores performed better and longer on tasks designed to provide low motivation and interest levels. Also, Greenberg (1977) found that negative performance evaluations resulted in performance improvement among individuals with high PWE scores and a decrease in performance levels among individuals with low PWE scores. Greenberg (1979) also found that high PWE scorers had a tendency to take both productivity levels and duration of work into consideration when making decisions regarding the allocation of money to hypothetical workers. In contrast, individuals with low PWE scores used the duration as the only criterion in deciding how to distribute funds.

Other correlates of PWE include higher order strength needs, authoritarianism, and internal locus of control (Morrow, 1983). The construct has also been studied with regard to job design variables (Ganster, 1980; Sekaran, 1989), psychological distress (Jackson et al., 1983; Stafford et al., 1980), days off (Koslowsky et al., 1990), sick days (Koslowsky et al., 1990), employment status (Stafford et al., 1980), mental health (Stafford et al., 1980), occupational rank (Dickson and Buchholz, 1977), religion (Buchholz, 1977) and job satisfaction (Morrow and McElroy, 1987). Morrow (1993) also reported:

> A composite measure of professionalism and five constituent subscales . . . demonstrated correlations with PWE ranging between nonsignificant and $r = .34$ (Morrow and Goetz, 1988) while job involvement . . . and PWE correlations ranged between $r = .24$ (Sekaran, 1989) and $r = .41$ (Morrow and McElroy, 1986). Organizational commitment . . . and PWE correlations were between $r = .28$ (Morrow and Goetz, 1988) and $r = .42$ (Morrow and McElroy, 1986) (Morrow, 1993).

PWE has also been investigated in several different cultures (Tang, 1993). Tang (1993) lists these as Great Britain (Furnham, 1984a, 1984b, 1989; Furnham and Muhiudeen, 1984), Malaysia (Furnham and Muhiudeen,

1984), Taiwan (Ma, 1986; Ma and Smith, 1985; Tang, 1990; Tang and Bumeister, 1984), Hong Kong (Ma, 1987); New Zealand (Poulton and Ng, 1988), the Caribbean islands (Gonsalves and Bernard, 1983), East Africa (Munroe and Munroe, 1986), and South Africa (Bluen and Barling, 1983). This diversity in foci of studies gives testimony to the fact that researchers generally attribute great significance to the strength of the work ethic to pervade many aspects of life.

McClelland (1961) drew heavily upon Murray's work and became a pioneer in the attempt to conduct a psychological analysis of PWE (Furnham, 1990a). Their efforts were primarily directed at examining the relationships between an individual's need for achievement (*n* Ach) -- which is considered a dispositional or psychological individual difference variable-- and economic growth. Based on McClelland's studies, Furnham (1990b) concluded that *n* Ach "is clearly a major component of the PWE though these overlapping concepts are not identical. The latter is multi-dimensional, while the former unidimensional" (p. 29).

Method

Sample. Data for this study were obtained from a nonrandom sample of 245 subjects from a single private sector health insurance organization. Respondents were participants of in-house training programs, and ranged from clerical employees to mid- to upper-level managers. Training topics included computer training, team building skills, new employee training, technical training, and leadership training sessions.

This sample size is well within the recommended range for structural equation modeling research studies (Hair et al., 1998; Kelloway, 1995). Generally, a minimum of 200 subjects is recommended (Hair et al., 1998), and a respondent to parameter estimated ration of 5:1 is considered adequate. In this model, the ratio falls within the acceptable range.

The average age of the respondents was 35.5 years (min. = 19 years, max. = 68 years, sd = 10.516); 28.4% or 68 of the respondents were male and 71.6% or 171 of the respondents were female. Five of the respondents (2.0%) had less than 1 year work experience; 16 respondents (6.7%) had 1-3 years work experience; 30 respondents (12.6%) had 3-5 years work experience; 101 respondents (25.1%) had 15-25 years work experience; and 27 respondents (11.3%) had more than 25 years work experience. Fifty-five respondents (23%) reported 1-3 years with the company; 36 respondents (15.06%) reported 3-5 years with the company; 48 respondents (20.08%) reported 5-15 years experience with the company; 39 respondents (16.3%) reported 15-25 years with the company; and 6 respondents (2.5%) reported more than 25 years with the company.

Procedure. Surveys were administered to respondents prior to their participation in an organizational training program. All participants were required to attend these classes as part of their job responsibilities. In each case, the trainer read a description of the research project with instructions for participation from a prepared script. Questionnaires were presented to participants as part of the training program. Instructs were told to allow the participants to withdraw if they had any objections to the study: none objected, however.

Measuring Work Ethic. Furnham (1990a, 1990b) conducted a comprehensive review of the work ethic literature (Blau & Ryan, 1997). He cited seven measures of the construct: Protestant Ethic (Goldstein & Eichorn, 1961); pro-Protestant Ethic and non-Protestant Ethic (Blood, 1969); Spirit of Capitalism (Hammond & Williams, 1976); Protestant Work Ethic (Mirels & Garrett, 1971); Leisure Ethic and Work Ethic (Buchholz, 1977); Eclectic Protestant Ethic (Ray, 1982); and Australian Work Ethic (Ho, 1984). Furnham a priori content analyzed and then empirically factor analyzed these measures. His content analysis indicated that there are seven dimensions of PWE: hard work, nonleisure, independence, asceticism, separate morals and spiritual/religious factors. His subsequent factor analysis with varimax rotation found empirical evidence for five factors: belief in hard work; leisure avoidance; religious and moral beliefs, independence from others and asceticism. The multidimensionality of this construct (e.g., multiple eigenvalues greater than unity) is also supported by factor analyses by Heaven (1989), Tang (1993), and Mirels and Garrett (1971).

Building on the work of Furnham (1990a, 1990b), Blau and Ryan (1997) conducted exploratory factor analyses to identify dimensions of the work ethic construct. Their study revealed a four-dimensional construct: hard work, nonleisure, asceticism, and independence. Coefficient alpha reliabilities were .85 for hard work; .80 of nonleisure; .75 for independence; and .70 for asceticism. Their findings were supported in various sub-sample analyses. Also emerging from the Blau and Ryan (1997) study was an 18-item secular work ethic instrument (see Table 1). The items were selected from high loading items drawn from the seven instruments used in Furnham's work. This instrument consists of 6 hard work items, 5 non-leisure items, 3 asceticism items, and 4 independence items. Even though Blau & Ryan (1997) contended that a shorter (12-item) instrument could be formed by choosing the 3

highest loading items for each factor, this study will utilize the longer 18-item factors that emerged from their study. This instrument appears to contain the most valid items empirically derived from the seven different instruments.

Analysis. This study's analysis was a two-step process. First, the factor structure of the 18 items used to measure PWE (Blau & Ryan, 1998) was evaluated through exploratory factor analysis to replicate their procedures. This initial analysis evaluated the initial loading of the individual items on the scales. The next step was to conduct a separate confirmatory factor analysis of the work ethic instrument. A second analysis was conducted to evaluate the fit of the measurement model comprised of the scale scores and latent constructs. Input for estimation of the measurement and the structural model was provided by a covariance matrix prepared with PRELIS 2.2.

Results

Step 1: Exploratory Factor Analysis .These results indicated that the scales of hard work, asceticism, independence and non-leisure were present in the data as separate constructs. The initial exploratory factory analysis suggested five factors. However, the fifth factor was only a two-item factor representing two items that were expected to be part of the first factor. A second EFA constraining the number of factors extracted to four resulted in those items loading at acceptable levels on factor one. In this case the factor structure was identical to that found by Blau and Ryan (1987). The minor variation found in the initial EFA is within the scope of that expected by normal sample specific variations (see Table 2).

Step 2: Confirmatory Factor Analysis. Using the procedures and guidelines described above, the complete measurement model was examined. Results of the analysis of the complete measurement model indicated that all paths were significant (t-values ranged from 2.77 to 12.88). Following the Hair et al. (1998) criteria for factor loadings, this factor analysis confirmed the four hypothesized factors. Factor loadings ranged from .44 to .91, and all items loaded on the appropriate factor. The fit was considered adequate (χ^2=295.88(113), p=.001; GFI = .87; AGFI = .83; RMSEA=.082; SRMR=.082; NNFI = .85; CFI = .88) and superior to that of the single factor baseline model (χ^2=1166.76(113), p=.001; GFI = .64; AGFI = .53; RMSEA=.19; SRMR=.16; NNFI = .41; CFI = .48).

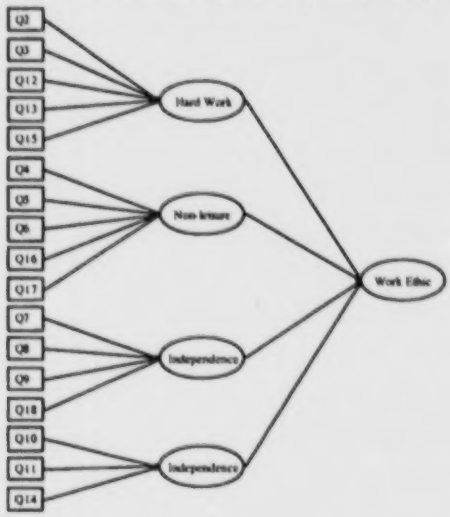
Table 1. *Exploratory Factor Analysis Results*

	Factor			
	1	2	3	4
Q15	.937			
Q16	.886			
Q14	.751			
Q116	.473	-.223		
Q117	.470	-.232		
Q113		.762		
Q13		.638		
Q112		.629		
Q12		.618		
Q115		.517		
Q18			.817	
Q19			.727	
Q118			.547	
Q17	.293		.488	
Q111				.800
Q110				.772
Q114				.645

A second confirmatory factor analysis was subsequently conducted to evaluate the fit of the four first-order factors on the latent construct work ethic. As shown in figure 1 below, the paths to the higher order factor should be significant provided the four scales do, in fact, represent one underlying work ethic construct.. However, all of the paths to work ethic were non-significant and there was a negative error variance for non-leisure. This was an early indication that the work ethic construct had measurement problems. Thus, nonleisure was eliminated from the model to determine if a plausible higher order model existed for the other three components of work ethic.

Following the recommendations of Rindskopf (1984), models with this situation should be re-examined for signs of factors with either no or only large loading, or two large loadings if the factor had low correlations with other factors. Work ethic fit one of Rinskopf's categories with low loadings on all factors (hardwork = .27; independence = .18; and asceticism = .21). Based on Rindskopf's recommended strategy, work ethic would be combined with another latent construct.

Eliminating non-leisure from the model did resolve the negative error variance problem. However, it also revealed more significant problems. Specifically, none of the paths from work ethic to the first order latent variables were significant and there was a near zero squared multiple correlations for two factors (hard work, r^2=.05; asceticism, r^2=.001) indicating that almost no variance in them was explained by work ethic. Only independence had a substantial portion of variance explained by work ethic (r^2=.65) but the path was non-significant.



Discussion

Blau and Ryan (1997) extended Furnham's (1990a, 1990b) initial work on the work ethic construct and, through exploratory factor analysis, identified a four-factor structure of the construct. These four dimensions were hard work, nonleisure, independence, and asceticism. Blau and Ryan (1997) also advocated the use of an 18-item secular work ethic instrument. However, when subjected to confirmatory factor analysis, severe instability of the construct was detected. The scales for asceticism, independence, and nonleisure did not load on the work ethic latent construct. These findings suggest that work ethic is not a single latent construct with these four dimensions.

One possible explanation for the failure of these scales to load on the work ethic construct stems from the changing values in contemporary society. This construct, which originated with the work of Max Weber (1958), may have provided a more adequate representation of work values during earlier times. According to Weber's conceptualization of work ethic, which stemmed from Calvinistic and Quaker individualism and asceticism (Macoby, 1983), work is "performed as if it were an end in itself, a calling" (Weber, 1958, p. 62). Individuals with a strong work ethic are committed to the values of hard work and embrace the Calvinistic tradition of frugality, hard work, conservatism, and success (Weber, 1958).

Today's culture, however, does not necessarily support the same conventions and values as the culture of previous times. The history of work values is constantly changing and evolving, so the notion that the work values of 1958 would not be applicable today is consistent with historical trends. A redefinition of work values has occurred. Bernstein (1997) describes contemporary employees as "inner-directed employees who clearly place their personal wants and aspirations above those of their employers" (p. 221). Work schedules and business priorities are secondary to self-fulfillment (Sinetar, 1980). For instance, there is an increased emphasis on stress management and wellness initiatives that frequently involve leisure activities (e.g., walking, fishing, golfing, jogging, etc.). In fact, entire industries are built around filling our leisure time and, as a society, we are inundated with advertising campaigns enticing us into leisurely living. So, while the values of previous generations may have bee deeply rooted in nonleisure as the norm, such is not the case in contemporary society.

Asceticism, like nonleisure, may not be representative of today's values. The term is defined as "rigorous abstention from self-indulgence" (Webster, 1986, p. 126). In the 21st century, the current emphasis is not on minimalism, but rather on materialism. Certainly, the wants and needs experienced during post-depression/post-war times differed greatly form what many of us currently express as "wants" and "needs" (e.g., motor homes,

swimming pools, luxury automobiles, etc.). Thus, the concept of asceticism may no longer be a component of the work ethic construct.

A closer examination of the concept of independence also challenges its place within the construct. Many organizations (including the one used in this study) stress teamwork as a desirable work behavior. In fact, team-building training courses are offered in countless organizations, and staff meetings consume a large percentage of many employees' workdays. Thus, independence is not necessarily the most desirable employee behavior. Therefore, its failure to load on the work ethic construct is understandable.

In light of the prevailing values, cultures and mores, it is possible for an individual to score high on the hard work scale, but low on asceticism, nonleisure, and/or independence. Compliance with the norms and values of today's society would lead an individual to respond to the instrument in a manner that would be contrary to the protestant work ethic construct which requires high scores on all four facets of the construct -- hard work, nonleisure, asceticism, and independence.

While the work ethic scale items emerged from previous first order exploratory factor analysis studies, no other known study has attempted to analyzed the construct using confirmatory factor analysis of the latent work ethic construct. First order exploratory factor analysis only identifies whether the four scales are separate factors, not whether they represent one higher order construct. In this data, an exploratory factor analysis did, in fact, replicate the Blau and Ryan (1997) structure. However, this study went further by evaluating not only whether the items loaded on the respective scales, but whether the four scales represented one latent construct of work ethic.

This findings of this study suggest that the secular work ethic scale (Blau and Ryan, 1997) may no longer be an appropriate instrument to assess work in contemporary society. Despite the fact that the individual scales appear acceptable, these findings do not support the premise that these scales are representative of a single underlying work ethic construct.

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Cost Analysis of E-Learning: A Case Study of a University Program

Tim L. Wentling
Ji-Hye Park
University of Illinois at Urbana-Champaign

Due to the advantages of e-learning, more and more schools and companies are adopting e-learning and increasing their investment in it. The increased investment has brought the need to demonstrate the cost-efficiency of the investments. Tthis study reviewed the literature related cost drivers of elearning programs and analyzed the cost-efficiency of the HRE Online program at the University of Illinois. Breakeven analysis revealed that the minimum enrollment should be twenty-three to attain the cost-efficiency.

Key words: Cost Analysis, Cost-efficiency, E-learning

In an age of severe competition and turbulent change, survival is a pivotal problem which organizations confront. Organizations have tried to find ways improving employees' performance, and training has been regarded as one of the most important strategies to solve the problem.

In addition to the accelerated importance of training, rapid development of technologies and computers has changed methods of education and training and caused the blossom of e-learning programs. The use of technology-based training and electronic training (e-learning) is one of major trends in the field of HRD (Bassi, Benson, & Cheney, 1996; Bassi & Van Buren, 1998). Various terms are being used to name these emerging training methods, i.e., asynchronous learning, distributed learning, online learning, web-based learning, computer-based training, e-learning and distance learning. Asynchronous learning focuses on the difference of time when learning occurs; online learning, web-based learning, e-learning and computer-based learning emphasize the learning technology and tools used; distance learning concentrates on the difference of places where a learner and a teacher exist. Regarding the interrelation among those terms, Urdan and Weggen (2000) identifies e-learning as a subset of distance learning, online learning as a subset of e-learning, and computer-based learning as a subset of online learning. Among those terms, e-learning is the most increasingly used concept especially in corporate setting. E-learning is defined as "the acquisition and use of knowledge distributed and facilitated primarily by electronic means (Wentling, Waight, Gallaher, Fleur, Wang, & Kanfer, 2000, p.5)." Based on this definition, e-learning would be evolved to systems consisting of a variety of channels and technologies and can take the form of courses as well as modules and smaller learning objects and may incorporate synchronous or asynchronous access and be distributed without geographical limits (Wentling, et al., 2000).

E-learning using technologies and computers to improve learner's skill and knowledge has the following advantages (Schriver & Giles, 1999; Au & Chong, 1993): space is not needed; learners do not need to wait until a class is available; learners can complete training when it is least disruptive to their schedule; and the methods can increase learner's interesting, deliver contents clearly, and feedback students easily.

Due to these advantages of e-learning, the popularity of e-learning has dramatically increased over the past few years. According to the National Center of Education Statistics, the number of enrollments in all distance education courses approximately tripled from the 1994-1995 school year to the 1997-1998 school year. About one third of all are two-year and four-year postsecondary institutions offered distance education in 1997-1998 in the U.S., and an additional twenty percent planned to start it within three years (Morgan, 2000).

The increased investment in e-learning has led companies to be concerned with the performance and efficiency of the method. That is to say, organizations are eager to know how effective e-learning is. Accordingly, organizations have increased efforts to prove whether the training intervention was successful or not, especially e-learning (Phillips, 1997).

Based on the literature related to evaluation of e-learning programs, three major factors were identified as the focus of e-learning program evaluation: cost efficiency, learner satisfaction, and learning resources. Among these issues, cost-efficiency of e-learning programs has been increasingly important because some institutions have failed due to the lack of well-thought out financial plans (Morgan, 2000). Further, chief executives are increasingly

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concerned with the impact of training on "the bottom line" (Phillips, 1997). In addition, it was revealed that trainers perceived that cost is a key barrier for successful implementation of e-learning (Xebec McGraw-Hill, 2000).

Cost-efficiency of E-learning Programs

Cost-efficiency and cost-effectiveness are two similar terms related to financial performance. Even though they have slightly differentiated meanings, they have been used without clarification. Efficiency means the ratio of output to input and effectiveness is concerned with only output. Stated differently, efficiency focuses on "how much output was obtained from the input," that is, the quantity and effectiveness focuses on "how relevant the output is," that is, the quality. A learning method is relatively cost-efficient in the case that its outputs cost less per unit of input and it is cost-effective if its outputs not only spend less cost than others but also are relevant to learner' needs (Rumble, 1997). Hence, a learning method can be effective but not necessarily efficient and vice versa. Accordingly, two terms should be used cautiously and be well-defined.

From the perspective of education, when relating the financial performance of education and training, it does not mean just program costs but costs related to educational value and learner's needs. Therefore, the cost-effectiveness rather than the cost-efficiency is more apt to mention the financial performance of education and training. However, many educators and decision-makers believe that the fact that e-learning can save costs is the major advantage of an e-learning program, because it is assumed that enhanced student enrollment would result in increased revenue and lower cost. Most decisions related to training, especially in private organizations, are based on cost-efficiency. Even though this fact does not mean that cost should be the most critical information for educational decisions, it is certain that cost efficiency is one of the crucial types of information.

The analysis of cost-efficiency of elearning programs has three benefits (Parsons, 1995). First of all, the analysis might help trainers look at the program through the customer's perspective. Secondly, it provides a guide to discuss the program with major stakeholders of them. Lastly, it is helpful to make a decision related to the program.

There are various methods to measure and analyze the cost-efficiency. Mostly used methods to analyze cost-efficiency are cost-to-benefit ratio (CBR), return-on-investment (ROI) (Phillips, 1994) and breakeven point analysis (Whalen & Wright, 1999)

The cost-to-benefit ratio is simply the program benefits divided by program costs. The formula is as follows:

CBR = Program benefits/ program costs

Return on investment utilizes the percentage of the net program benefits over program costs. The net benefits are the program benefits minus the costs. The formula is as follows:

ROI (%) = Net program benefits/ program costs X 100

When calculating the program benefits, it is crucial to convert various data to monetary value in order to get an accurate and credible result. Phillips (1997) suggested ten major strategies to convert data to monetary value: output data is converted to profit contribution or cost savings; cost of quality is calculated; wages and benefits are used for the value for time; historical costs; internal and external experts; external database; participants estimates; senior management provides estimates; and HRD staff estimates.

Breakeven analysis means the number of students that offset the fixed cost of the e-learning program. E-learning programs need enormous investment at the start-up stage of developing and delivering a program. Because of the high start-up and fixed costs, e-learning programs are more expensive than traditional classroom learning in the case of small enrollment (Jewett, 1998). Young (1998) summarized and synthesized eight case studies evaluating the benefits and costs of mediated instruction and distributed learning. Four out of eight studies included breakeven analysis.

There is no firm formula for determining the optimum number of students for e-learning programs (Bates, 2000; Morgan, 2000). Bates (2000) mentioned that the appropriate number of students should be determined by educational philosophy, course design, and the number of students who can be handled by the technology. Despite this difficulty, Bishop (2000) tried to determine optimum cohort size based on the cost analysis. According to the result, a cohort consisting of 25 students appeared both fiscally viable and pedagogically sound, even though the result showed a small profit with the 20 student cohort. In the case of courseware for remedial mathematics which utilizes an interactive (Cates, 1998), multimedia learning system developed by Academic Systems Corporation in order to improve the success rate of students, sufficient levels of annual enrollment that the costs of mediated learning system can be less than those of classroom course were 1,000 students per year. Another study compared the cost-efficiency of on-campus programs and multiple receive sites programs via an integrated satellite and

videoconferencing system of the Human Computer Certificate Program at Rensselaer Polytechnic Institute (Bray, 1998). Consequently, the course had a break-even enrollment of about 15 receive-site students. Whalen and Wright's study (1999), which hypothesized that there are several key design elements that should be identified as costs in the web-based training programs and analyzed a break-even point and return-on-investment, revealed that the program had a break-even number of 112 students and a ROI of 228% through 3283%. Even though a break-even point of each program is totally different, the common fact is that an e-learning program is more expensive than traditional instruction makes it important to compute. Therefore, the decision about how many students would be admitted to one cohort is important educationally as well as economically.

As stated above, breakeven point analysis provides crucial information for deciding class size. Deciding online class size is balancing between quality and budget and one of the crucial issues course designers should consider (Distance Education Report, 2000). Accordingly, this study focused on measuring the breakeven point and further suggesting an appropriate cohort size of a course in HRE Online program at the University of Illinois at Urbana-Champaign.

Questions

As indicated above, the importance of cost analysis of e-learning program is getting more important. So is that of HRE Online program at the University of Illinois at Urbana-Champaign. Accordingly, this study addressed the following questions:

1. How cost-effective it the HRE Online program?
2. What is the appropriate cohort size for HRE Online in terms of cost?

Background of the HRE Online Program

The University of Illinois at Urbana-Champaign has a rich history of technology leadership and was the home of the first web browser development that has resulted in the major growth and access of the Internet. In the mid-nineties, the University of Illinois saw an emergence of professors using the Internet within their instructional efforts. These efforts were pedestrian to today's use but they represented the growth of ideas and use. By 1997 several campus leaders decided that the university should invest in the design and delivery of online courses and programs.

The HRE Online program is entitled "Global Human Resource Development" was proposed in the Spring of 1998. The HRE department initiated this effort for several reasons. The department has a fairly sophisticated faculty in terms of technology use, with faculty using web support for most on-campus courses. The department also has several faculty who teach courses related to instructional technology and they also conduct research in this area. Consequently, there was a built-in interest in online instruction. Additionally, the HRD emphasis of the department puts faculty in contact with practitioners in the private sector who are involved with e-learning projects (the author has major research funding from the industrial partners of the National Center for Supercomputing Applications, the Office of Naval research, and the National Science Foundation). This provided for increased levels of faculty expertise as well as awareness of trends in the field.

The Department was also experiencing a growth spurt in terms of adding faculty. Consequently, capacity for new ventures was present. This increased capacity allowed for released time for development and the adding of additional online course offerings. The department had experience in delivering a master's degree in off-site locations that included Chicago, Peoria, Rockford, and Nairobi Kenya, even though these early programs were delivered face to face. Consequently, the move to an online program was attempted to meet an existing demand for a master's degree in HRD. The online approach allowed for the identification of a broader audience than ever before for off-campus programs because of the "anywhere" feature of online learning. The first cohort of fourteen students graduated in May and August of 2001. The department recruits students on an annual basis and simultaneously enrolls three cohorts of students.

This program is a degree program resulting in a Master of Education degree. The program includes nine courses. These courses are similar in content to courses taught on-campus as part of the masters program. A cohort of students is recruited every year. Students take one course per term that includes Fall, Spring, and Summer. The course length was adjusted to twelve weeks after experience with the first cohort. Campus based courses are sixteen weeks long, however, the same amount of subject matter is included in both length courses.

The department achieved a high level of support and involvement of the faculty - with nine different faculty members being involved in the masters program. The faculty were provide released time from the teaching of one

course to compensate them for the extra time involved in transforming a course to the online form. Consequently this was a cost to the department - the loss in teaching capacity for one term. However, since development/transformation was spread over a two-year period of time, it did not place an extreme strain on the department. In addition to release time, faculty were provided "development assistance" for the technical parts of course transformation. This assistance was provided by a team of graduate research assistants, who had technology experience. It is estimated that fifteen hours per week for sixteen weeks in development assistance was provided for each course. During the term that faculty actually teach or deliver a course, they are provided teaching assistant ten hours per week.

The nine courses are delivered in a combined synchronous and asynchronous form. The asynchronous delivery occurs through students receiving a streamed PowerPoint supported lecture. These lectures are usually fifteen to twenty-five minutes in length. Additionally, students are provided by learning activities that they complete either independently or as a team activity, depending on what the professor requires. Students submit their work electronically in a variety of forms and ways, according to professor's preferences. Synchronous instruction is provided through once per week session that lasts approximately one hour. This session involves all students logging onto a text chat system with each other and the professor. The professor uses live, streamed audio to talk to the students and to lead discussions

Data Collection

This study collected cost information about cohort 2 among three cohorts who are enrolling in HRE Online program at the University of Illinois at Urbana-Champaign at present and conducted the breakeven point analysis. The reason why this study focused on the cohort 2 instead of the cohort 1 which already graduated in May 2001 is that tuition of the first cohort had been underestimated and it was adjusted for the second cohort. In addition, because the second cohort will graduate in next summer, the remaining cost for this cohort can be projected accurately and easily.

As stated above, elearning programs need enormous investment at the start-up stage of developing and delivering a program unlike a traditional program. Because of the high start-up and fixed costs, e-learning program is more expensive than traditional classroom learning in case of small enrollment below the breakeven number of learners (Jewett, 1998). Even though the start-up cost of e-learning programs has a great impact on the breakeven point, start-up costs for this program have not been considered in this study. Since funding was received from the central administration for the support of start-up and because the department contribution was in released time, it was not necessary to recover these costs and thus this information was not collected. Accordingly, the cost analysis result of this study may be shown to be more cost-efficient than that of others.

The Results of Cost Analysis of HRE Online Program

Cost-effectiveness of the HRE Online Program

Cost drivers of the HRE Online program consists of two elements - fixed costs and variable costs. Fixed costs include tech coordination salary, administrative time, secretarial support, equipment, facility, contracted server support, network support, and office communication cost. Variable costs depending on the number of courses are faculty salary, technology support staff, teaching assistance salary, course materials, and mailing costs.

In strict cost analysis using a business model it would be expected to include all costs, that is, fixed costs, variable costs, direct costs, and even indirect costs. In the university setting, however, it is typically not required to include some of the fixed costs of a program such as office rental, secretarial support, network administration and so on. This analysis included only direct costs related to operating the program such as faculty salary, TA and tech support, coordination, software and equipment updates, and office supplies. Some of fixed and indirect costs are shared with on-campus program and it is hard to exactly differentiate the portion of the on-campus program and the portion of the online program.

The program start-up was funded through a cost sharing approach between the HRE department and the University Vice President for Academic Affairs' office (VPAA). The VPAA provided a sum of $156,000 to be spread over a two-year period. These funds were used for hiring graduate assistants for development and teaching assistance, for equipment, and for design and programming on a work for hire basis.

The department invested both direct and indirect resources in the program. The major direct cost was in the form of faculty release time. This amounted to approximately twenty-five percent of nine faculty member's time for one semester. The teaching load at HRE/UIUC is two courses per term, which accounts for 50% of ones load (50% teaching, 35% research, and 15% service). Therefore, approximately fifty-five thousand dollars in faculty time was devoted to start-up. Additionally, indirect expenses in the form of space, utilities, and some equipment were costs born by the department.

Operating or recurring costs for the program included primarily the fixed costs of faculty salary and development and teaching assistants. This accounts for three faculty per year at twenty-five percent of their salary for one term each. Graduate assistants were funded at the level of .25 FTE for technical support and .25FTE for teaching support for each of the three courses offered per year. A .25 FTE appointment for graduate students is ten hours per week. The current salary for .25 FTE Graduate Assistants is $687 per month. Also, a full-time coordinator is employed to oversee and support the program. This person's salary is split among the three cohorts in the HRD program and another online program offered by the department. Revenue for the program is based on tuition from enrolled students. More specific information regarding revenue and income statement for one cohort was presented in Table 1 and Table 2 respectively.

Table 1. *Summary of Revenue by course*

	Semester	List of course	Number of students enrolled	Tuition	Total Revenue
Cohort 2	99 Fall	HRE 387 (1/2) HRE 389 (1/2)	34	848	28,882
	00 Spring	HRE 383	29	848	24,592
	00 Summer	HRE 384	20	848	16,960
	00 Fall	HRE 483	22	848	18,656
	01 Spring	Edpsy 362	21	848	17,808
	01 Summer	HRE 454	18	936	16,848
	01 Fall	HRE 450	19	936	17,784
Projected	02 Spring	HRE 457	19	936	17,784
	02 Summer	EPS 399	19	936	17,784
Total Revenue					177,098

Table 2. *Pro Forma Income Statement for One Cohort*

August 21, 1999 to August 20, 2002			
Revenue			
	Gross Revenue from Tuition	177,098	
	Less Waivers	31,936	
	Total Revenue		145,162
Expenses			
	Faculty Salary and Benefits	79,236	
	TA and Tech Support	51,828	
	Equipment and software updates	7,000	
	Coordination Expense	41,832	
	Others (office suppliers, phone, etc)	14,400	
	Total Direct Expenses		194,296
NET			(49,134)

The third cohort was admitted in August of 2000 and the first cohort started the program in 1998. The fourth cohort will begin in the Spring of 2002. The expectation of the Department is to run three cohorts simultaneously at all times. The first cohort paid the standard tuition rate charged to all off-campus students at the in-state rate. This amounted to $640 per four-semester hour course. The cohort had paid the same rate through the duration of their cohort program. Before the second cohort was recruited and admitted, the department obtained approval to increase

the rate of tuition to $848 for each four-hour course. It has been increased to $936 to the present. Because the tuition rate for the first cohort was underestimated, this study focused on the cost-analysis for cohort 2. For cohort 2, the total revenue based on students' tuition was $145,162 and the total costs were $194,296. Specific costs spent were presented in Table 3.

This result shows that total cost of this program exceeds total revenue. Thus this program is hardly said to be cost-efficient at present. Revenue for the program is based on tuition from enrolled students. On the contrary, most of costs are fixed and not affected by the number of students enrolled. As more students enroll in the program, revenue increases, but total costs do not fluctuate. Making profits from this program, therefore, depends on the number of students enrolled. As seen from Table. 4, the number of enrolled students has gradually dropped out and it caused this negative result of cost-efficiency. To make this program cost-efficient, therefore, it is important to maintain the number of enrolled students over the breakeven point. The following section is focused on analyzing the optimal number of students for each course.

Table 3. *Expenses for Cohort 2*

	Fall 99 N=34	Spring 00 N=29	Sum 00 N=20	Fall 00 N=22	Spring 01 N=21	Sum 01 N=18	Fall 01 N=19	Spring 02 N=19	Sum 02 N=19
Faculty salary*	6,988	6,988	6,988	6,988	6,988	6,988	6,988	6,988	6,988
Benefits	1,816	1,816	1,816	1,816	1,816	1,816	1,816	1,816	1,816
TA**	2,677	2,677	2,677	2,868	2,868	2,868	3,093	3,093	3,093
Tech Support **(DA)	2,677	2,677	2,677	2,868	2,868	2,868	3,093	3,093	3,093
Coordination***	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Benefits	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Administrative support	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Contracted server support	500	500	500	500	500	500	500	500	500
Others	100	100	100	100	100	100	100	100	100
Total cost	20,798	20,798	20,798	20,989	20,989	21,280	21,630	21,630	21,630
Total revenue	28,882	24,592	16,960	18,656	17,808	16,848	17,784	17,784	17,784
Net	8,084	3,794	-3,838	-2,333	-3,181	-4,332	-3,846	-3,846	-3,846

*Salary was calculated for each faculty member, summed and divided by the number of courses. This preserves the privacy of salary data.

**Based on.25FTE GRA for one semester.

***Based on salary of coordinator being split among three cohorts and another online program

Optimal Cohort Size

Based on the current amount of expenses, total costs for one cohort course are $20,523. Based on the current tuition rate, the program begins to make profits from the point that 22 students enroll one cohort (Revenue: 22 × $939 = $20,592). Consequently, the cohort size should be kept at or above 22 who pay tuition. Since it is impossible to predict the number that will receive tuition waivers, it is important to enroll more. It is also expected that attrition will occur and this should be estimated and considered in recruiting.

This study assumed that the start-up costs would be prorated over the first five years of the program. During that period of time, the number of courses offered would be 50.

As indicated above, the start-up costs $156,000 were funded from the University Vice President for Academic Affairs' office (VPAA) through a grant and the HRE department invested approximately fifty-five thousand dollars in faculty released time. Since a grant supported part of development, there is no need to recover that cost. However, the departments investment is of interest. When the start-up costs are divided by the average number of courses offered over the first five years (ten), the amount of money which each course should cover is about $1,100. To earn

$1,100 from students' tuition, approximately 1 more student needs to enroll in each course in addition to 22 paying students for breakeven. Accordingly, the optimal cohort size is 23 students with waivered students above this number. The result of this study was consistent with the result of Bishop's (2000), which was concluded that the 25 students cohort option seemed to be proper in terms of both finance and education.

Discussion

When all expenses are included, the HRE Online program has not broken even since the program was launched. However, in the case of e-learning programs provided by a university, the cost-analysis does not always require faculty salaries to be included. This is especially true when existing faculty capacity is being used to cover the expenses of the program. If this analysis excludes the faculty cost, HRE Online is definitely cost-effective.

When considering the financial performance of education and training, it is to focus not on just costs but on non-costs related educational value and learner's needs. The basic question determining the financial performance is not "Does distance education cost more or les than traditional education?" but rather "Are the educational outcomes worth the cost" (Thompson, 2000). Hence, other factors are critical to the success of the program - student learning, student satisfaction, retention, and faculty satisfaction. Especially student retention is crucial factor to determine the success of e-learning program. As the number of students enrolled in the cohort 2 show, students' retention directly affects the cost-efficiency of the program and furthermore indirectly demonstrates the degree of students' satisfaction with the program. Therefore, special concern should be given to issues in relation to retention, e.g., how the program retains students and why students leave the program in addition to the cost-analysis. Related, it is important to estimate attrition when setting an enrollment goal for a program to ensure cost efficiency of the last course as well as the first. Historical retention data can provide predictive information for planning.

Additionally, a philosophy of the department which offered this e-learning program is not to view program cost information in isolation from other data. One major benefit of the elearning program to the department is the establishment of a pipeline for its doctoral program. It is expected that some of the best e-learning students will be recruited into the on-campus Ph.D. program. Additionally, the e-learning efforts of the department generate almost $60,000 in graduate student support for technical assistance and teaching assistance. The consequence is the ability of the department to recruit and support at least four half time assistants each year.

Examining the cost-effectiveness of e-learning programs is complicated, because the constantly emerging nature of technology makes it complex to assess accurate costs (Bishop, 2000). Also, it is difficult to analyze the cost-effectiveness across institutions because different institutions have unique background of the program development and analyze it based on different definitions of cost-effectiveness (Picciano, 2000).

How This Research Contributes to New Knowledge in HRD

Cost analysis is one of the major concerns that HRD practitioners need to consider. According to Middleton (1997), different educational sectors have different concern about the effectiveness of training and development. For instance, administrators and managers have a concern about why a given program or course is undertaken in the first place and whether or not it has been successfully accomplished. That is, overall evaluation, instructors or designers focus on teaching methods and contents, and students consider broader base of not only the test results but also their learning satisfaction. Among various concerns, the ultimate criterion the business sector uses to judge the financial performance of training is cost (Middleton, 1997). Whether a program is cost-efficient or not is crucial information for further decisions about expansion or contraction of the program. It is hard to expect the increased investment to HRD without demonstrating the financial effectiveness.

This study is meaningful in that it reminds HRD practitioners or scholars of the importance of cost analysis of e-learning programs which became a major educational form of the HRD field. This study, however, is not limited to emphasizing the importance of cost analysis of an e-learning program. This emphasized equally how unique a cost-analysis of an educational programs is. In other words, it is needless to say that cost-analysis in a business setting should include all expenses, but it is not always true in cost-analysis in educational settings. Some costs do not need to be included in the model, for instance, faculty salary. This case study provided information about which costs should be included in cost analysis of e-learning programs especially in university settings and which ones should not, how to get the breakeven point and optimal cohort size and so on. This result may influence further

decisions regarding the number of students admitted or issues related costs for this program as well as for other universities which are planning to operate e-learning programs. Furthermore, other factors should be considered to ensure the effectiveness of the program - student learning, student satisfaction, retention, and faculty satisfaction in addition to costs. These variables are being monitored in relation to financial efficiency by the e-learning evaluation system. HRD practitioners should be able to understand distinctions of cost analysis of training programs and analyze the cost in an appropriate way.

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The Complex Roots of Human Resource Development.

Monica Lee
Lancaster University, UK

This paper uses notions of complexity in which to frame the case for the existence of processes that underlie the 'human condition' and that colour our existence and our understanding, theorising, and depiction of that existence. I use a Jungian typology to reinforce the parameters of four paradigms by which management and HRD have been interpreted, and locate this within some findings from evolutionary psychology. This analysis suggests that HRD is located at the dynamic and co-creative interface between individuals and organisations. The language of complexity is used to articulate implications this view holds for our understanding and practice of 'HRD'.

Keywords: Complexity, Evolutionary Psychology, Meta-typology

As the various branches of social science have developed the way in which they build accounts for the world and our existence within it they have moved away from each other and from the natural sciences. Barklow, Cosmides and Tooby (1992) note that the natural sciences have retained a common root in their development, such that any move forward needs to fit with both its 'home' discipline, and also be concurrent with all others in order to be accepted. This has not happened in a consistent way within the social sciences. In adopting a post-scientific perspective postmodernism has challenged many of the contradictory yet self-sustaining frameworks that have developed. Yet in creating a world that is devoid of structure other than our own unique and individual structuring of it, postmodernism is actively engaged in preventing constructive (or 'with structure') dialogue between the various disciplines of the social science (though see Cilliers, 1998). In contrast to this, the notions of complexity provide the ideal vehicle by which a meta-view of human existence can be established within which apparently contradictory world views can be accommodated.

Central to complexity theory is the idea that a complex system is more than 'just' a complicated system. A complicated system or a problem might be very complicated indeed, but with time and effort all its parts, and its whole can be measured and understood. In contrast, a complex system might be quite simple, yet its parameters cannot be measured or quantified (in the normal sense) and the whole is more than the sum of the parts. However much we atomise the different parts we can never get to the essence of the whole. In this there is similarity between postmodernism and complexity theory, however, unlike postmodernism, complexity theory suggests that whilst aspects of complex systems cannot be measured in the normal sense, we can infer relationships between the constituent parts and sub-systems, and we can deduce global underlying principles. Put another way, however we chose to view the world, there exist processes that underlie all of humanity, and the principles of complexity theory might provide a language by which we can get closer to an appreciation of them. (Tsoukas & Hatch, 2001)

There is no requirement that a complex system be uniform in nature. It may have sub-systems that appear in structure and function to be significantly different to each other and to the whole yet each is in relationship to the others and to the 'environment' of the whole, and the whole is in relation to the wider environment. This relationship might be one that is in a state of 'far from equilibrium' (Stacey, 1993) yet the system maintains dynamic coherence through autopiotic processes, and adheres to its global underlying principles. The following sections of this paper suggest that there exist processes that underlie 'the human condition' and mechanisms by which these are transferred across generations. Further, the diversity apparent between individuals and nations is indicative of self generating and autopiotic sub-systems that might be complex in their own right, but which are still parts of the whole, as each derives its identity or being from its opposite (as perceived from the whole) and 'development' in any of these sub-systems is synonymous with interaction with the whole.

Underlying Processes

In this section I shall explore what these processes might be through illustration. I do this to emphasis their metaphorical or representational nature. The words employed are used to represent concepts which are themselves socially constructed representations – in other words – whilst there might be some commonality of language between the various constructions discussed here it must be remembered that the meanings behind the words are dynamic, situated and ephemeral. One word may mean different things in different contexts and different things to different

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people (Jankowicz, 1994). I am therefore trying to explore the parameters of the concepts or meanings behind the words, whilst acknowledging that these concepts are also socially constructed and essentially undefinable.

Four main views of 'management' can be identified: the classical, scientific, processual and phenomenological. (Lee 1997a). Managers, within the classical view, must be able to create appropriate rules and procedures for others to follow, they must be good judges of people and able to take independent action as and when required. Good managers are assumed to be 'born' rather than 'made' – and so Management Development is a matter of selecting the 'right' people with leadership potential. The *scientific* view assumes that human behaviour is rational, and that people are motivated by economic criteria (Taylor, 1947). Within this view 'correct' decisions can be identified and implemented appropriately through scientific analysis, and thus good management techniques can be acquired by anyone with the right training and 'training departments' systematically identify and fill the *'training gap'*. Both of these approaches assume a structured and known world based upon rational principles and in which rationality leads to success. The other two approaches to management assume a world in which agency (rather then structure) is the predominant force. The *processual* view of management assumes that economic advantage will come to those who are best able to spot opportunities, to learn rapidly, and to create appropriate commitment amongst colleagues. Human resource development is seen to help managers develop leadership and interpersonal skills, creativity, self reliance and the ability to work in different cultures. Although the individual is the main stakeholder in his or her own development, the direction of the organisation (and thus of an individual's development) remains at the behest of senior management who, through initiatives such as Business Process Re-engineering (BPR), aspire to mould the organisation and the people within it. *Phenomenological* management, differs from processual management by the way in which the activities drive the functions, strategies and even leadership of the organisation. For many, management is about 'purpose' and 'doing' whilst phenomenology is about the 'study' of 'being'. All individuals are seen to collude with their situation and, through that collusion, are 'together' responsible for the running and development of the organisation (despite some being 'senior management' and others from the shop floor). 'Management' is about being part of a system whose activities change as a function of the system and of its relationship to its environment.

These four approaches link quite closely to the four ways in which the word 'development' is used in the literature, as delineated through an entirely different line of research (Lee 1997b). Development was used to indicate a form of *maturation* – the (inevitable or natural) progression through series of stages of life cycle. When used to indicate *shaping* it similarly implied a known endpoint to which the individual or organisation was steered by the application of various tools, within a known, quantifiable and manageable environment. In contrast, the other two uses of the word 'development' that were identified did not have a known endpoint. Development as a *voyage* was evident in literature about personal development – in which the self was the agent and the object, and development as *emergent* was evident in social science literature particularly, in which the lines between the individual and the organisation became blurred and the focus was upon co-development and co-regulation.

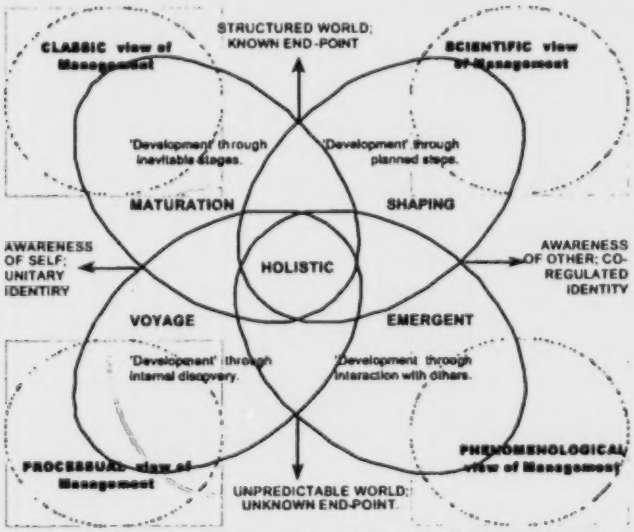

Figure 1. Four types of 'Development', after Lee 1977b

Figure 1 shows a representation of these four forms of development, presented as a typology (in which the lines of the figure indicate the strength of spheres of influence, and not delineations or divisive categories) and maps on to these the four views of management discussed earlier. This latter point is important and worth emphasising. I am NOT here discussing 'real' differences and saying that there exist four ways of 'doing' management or development – or that management or development are 'things' that can be done, or can be done to. In contrast, I am saying that there appear to be differences in the way that people talk about, or enact, whatever it is that constitutes 'development' or 'management' in their eyes, and, that there appears to be some consistency within the realisation of those differences. These points of

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similarity could, of course, merely be a product of my imagination – my own research being the common factor between the two, however, others have reached the same conclusion..

Parallels to these notions can be seen in the work of Carl Jung (1964, 1971). Jung suggested that whilst everyone seeks to make sense of the world around them, they do not focus on the same things. He suggested that there exist two processes (perception and judgement) which are independent of each other, and both are bi-polar, Perception is the process by which individuals make sense (consciously or sub-consciously) of their surroundings, and is thus mediated by previous understandings, expectation and anticipations, memory and unconscious influences (from the 'promissary notes' of metaphore, myth and rhetoric (Soyland, 1994) to primal drives). When gathering information people *prefer* to focus either on the 'here-and-now' information from their senses, or on the 'what-if' information they 'intuit' from the possibilities and patterns they see developing. Judgement is the process of deciding which of the many alternative perceptival interpretations avaliable at any one instant to adopt as 'reality'. Judgement is influenced by previous understandings and is more likely to be based upon post-hoc rationalisation than the traditionally accepted view of 'scientifically' weighing up the alternatives and rationally choosing the best option in advance of the final decision. When deciding about the information they have gathered, people *prefer* to make decisions based on objective thinking, by analysing and weighing the alternatives from a wide perspective, or to make decisions based on their feelings for each particular situation in an individualised manner.

There is strong evidence of individual variation in preferred perceptual and judgemental styles (see, for example, Mitroff and Kilmann, 1978, and Reason , 1981). Such variation forms the basic premise of the Myers Briggs Type Indicator (MBTI), a management assessment and development tool for individuals and organisations that is being increasingly used world-wide. It is beyond the remit of this chapter to go into the MBTI based literature in any depth, though see Briggs Myers and McCaulley (1985) , Krebs Hirsh and Kummerow (1987) for more detail. I raise the issue here to record general acceptance of the MBTI tool, and thus (by implication) the assumptions on which the tool is based. Other researchers have used Jungian dimensions as a basis upon which to build an analysis of their area, for example, Tufts-Richardson (1996) links Jungian typology to individual spirituality by mapping four types of spiritual path, whilst McWhinney (1992) maps four paths of change, or choice, for organisations and society. Similarly, as can be seen in Figure 2, the work of other researchers who make no claim to root their work in Jungian typology, such as that of Hofstede (1991), can also be mapped onto these dimensions.

I have included different approaches to learning in this figure as I shall refer to them in the next section, however, before moving on I wish to emphasise that we cannot label the dimensions in a fixed and unique manner, but we do need to understand their qualia better if they are fundamental to our way of describing and enacting self and society. In the following section I shall explore the underlying dimensions of these quaternities further by positing their evolutionary basis, and the way in which they might be promulgated.

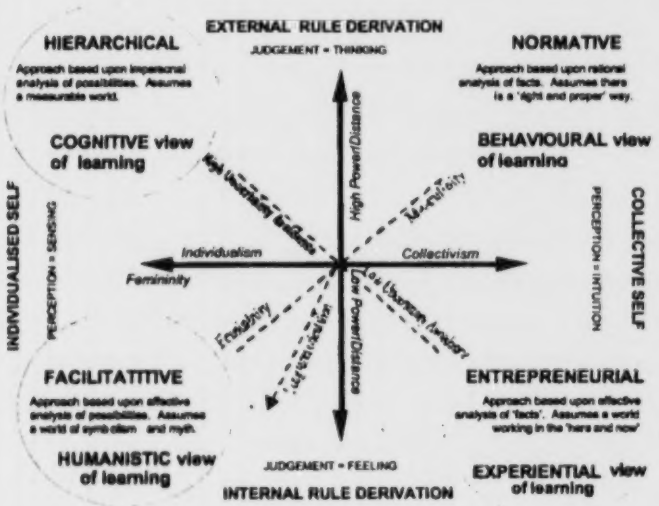
EXTERNAL RULE DERIVATION
JUDGEMENT = THINKING
HIERARCHICAL
Approach based upon impersonal analysis of possibilities. Assumes a measurable world.
NORMATIVE
Approach based upon rational analysis of facts. Assumes there is a 'right and proper' way.
COGNITIVE view of learning
BEHAVIOURAL view of learning
High Power/Distance
Masculinity
Individualism
Collectivism
Femininity
Low Power/Distance
INDIVIDUALISED SELF
PERCEPTION = SENSING
PERCEPTION = INTUITION
COLLECTIVE SELF
FACILITATITIVE
Approach based upon affective analysis of possibilities. Assumes a world of symbolism and myth.
ENTREPRENEURIAL
Approach based upon affective analysis of 'facts'. Assumes a world working in the 'here and now'
HUMANISTIC view of learning
JUDGEMENT = FEELING
EXPERIENTIAL view of learning
INTERNAL RULE DERIVATION

Figure 2. Mapping of typologies.

An Evolutionary Basis?

Research into evolutionary psychology and psychiatry (Barklow, Cosmides and Tooby, 1992; Bradshaw, 1997) suggests that human (and primate) affectional development progresses through the maturation of specific affectional systems, and that 'All major psychiatric syndromes may thus be conceives as inappropriate expressions of evolved propensities concerned with adaptive behaviour in the domains of group membership (..), group exclusion (..), and mating (..).' (Stevens and Price, 1996:29). They argue that there exist two 'great archetypal systems'. The first formative experience faced by our proto-human ancestors would be that associated with parenting and family. As our ancestors developed the pattern of bearing live young that needed parental care for survival they also developed the pattern of behaviours and emotions that bonded parent and child in

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a dependant relationship. Thus their first great archetypal system has to do with attachment, affiliation, care giving, care receiving, and altruism. As the child grew, was replaced by other children, and eventually became a parent themselves, so 'self' – and as a necessary and integral part of that process, 'not-self', or the 'other', emerged. Therefore, that the first fundamental dynamic played out in each person's life is that of self and other. This pervades the whole of our existence and is the core of self-development literature.

The second formative experience was that of collectivity. For 99 percent of its existence, humanity has lived in 'extended organic kinship groups' of about forty to fifty individuals,comprising six to ten adult males, twelve to twenty child bearing females, and about twenty juveniles and infants. (Fox, 1989). As predators, they were sufficiently effective not to need to develop large aggregations, flocking behaviour and high sensitivity to others in the group in order to survive, but they were sufficiently weak that they could only exceptionally survive as solitary individuals. We are therefore left with an awareness of society and its necessary structures and hierarchy, and also of individual agency. This equates to Steven and Price's second great archetypal system, that concerned with rank, status, discipline, law and order, territory and possessions. Stevens and Price posit that the search for achievement of archetypal goals occurs throughout the whole of the life-cycle, though the presenting face of the goals we seek changes as our circumstances change with age. These dual aspects of our collective psyche (self and other, and the structured law and the anarchic body (Hopfl, 1995)) can be seen mirrored in the tensions between sociology and psychology, or between structure and agency, as elucidated by Giddeons (1976). .

In other words, we can identify two fundamental processes derived from our evolutionary history that continue to effect our humanity and our enactment of our existence. I want to make a clear distinction between the discussion here about the existence of fundamental or underlying processes and our day-to-day appreciation of them. Our daily lives and ways of seeing them are framed by our sense making of our past and by our anticipation of the future – we each live in our own self-constructed worlds. The surface diversity of our own worlds does not, however, detract from the existence of underlying processes. Our existence is interpreted differently across the spread of our civilisations, but that is a matter of the ways in which we choose to make sense of our existence.

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Autopiotic Mechanism for Promulgation of the Sub-sets.

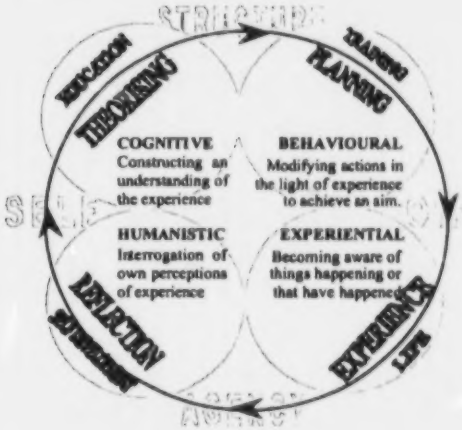
Socialisation can be seen as a mechanism by which the tensions and their resolution between self and other, and between structure and agency, are promulgated and emphasised through succeeding generations. I base my argument on the view that social development is a process of creative interaction in which 'individuals dynamically alter their actions with respect to the ongoing and anticipated actions of their partners.' (Fogel, 1993:34; Smith, 1992; McWinney, 1992; Lee, 1994). Relationships exist within mutually constructed conventions or frames of reference (Kelly 1955; Duncan 1991:345; Moreland & Levine, 1989), and a dynamic view of culture is facilitated (Hatch, 1993). 'Society' exists in so far as people agree to its existence - and could be a family unit or a nation. In some way (whether by being born into and thus socialised within it - as in a family or nation; through meeting 'like minded people and thus forming friendship groups; or formally through induction into an organisation) individuals come to identify (and be identified by others) as part of a community. In doing so they help create and collude with underlying values and norms. This process starts at birth and is a basal acculturation mechanism in which the underlying processes are the same whether the focus is upon family and friendship groupings, temporary 'micro-cultures', small or large organisations, or national culture (Burns, 1977).

There is empirical evidence of correlation between form of parenting and the child's life stance (Baumrind, 1973; Bee, 1985), and between career and family history (Cromie, Callaghan & Jansen, 1992). Similarly, there is evidence that choice of curricula, methodological approach and course design are partially governed by the value base of the providers, and thus perpetuate that value base (Ashton, 1988; Boyacigiller and Adler, 1991). Thus the approach to learning adopted by each society has a fundamental effect upon the continuation of the parameters of that particular society (Lee 1996). In Figure 1 different forms of learning were mapped against the archetypal parameters of self and other, and of structure and agency. In practical terms, the 'cognitive' environment carries with it group norms about received wisdom and the value of qualifications. Power is vested in those who have achieved qualifications and those who can give them. Cogent argument carries more importance than does applicability or individual difference. The 'problem' student (or heretic, Harshbarger, 1973) would be someone who lacked sufficient intelligence to master the required concepts. The 'behavioural' environment focuses upon activity, functionalism, and the importance of the end result. Norms are about identifying competence, and filling the 'training gap' to achieve appropriate levels of competence. The heretic is someone unable to demonstrate the required competence. The 'humanistic' environment focuses upon difference and equality. Received wisdom (in so far as it epitomises a particular view of reality) is inappropriate, as are identifiable and assessable 'competencies' (in so far as they epitomise a 'right' way of doing things). The problem participant is unwilling to explore and share

their affective and attitudinal aspects. In the 'experiential' environment the focus is on actionable outcomes - the end justifies the means. The heretic is someone who questions the route, or prefers inactivity. ('The confidence to act is a prerequisite for learning', Blackler, 1993

It is rare, in 'real life', that 'learning' only occurs within one approach. Instead, it is much more likely that in any situation one learns more 'holistically' (Lee 1996). Honey and Mumford (1989) suggest that 'experience' plays a part in any learning, regardless of whether or not it is acknowledged or focused upon within the educational process. One of the best known models of experiential learning is that of Kolb (1974, 1984) who suggests that the process of learning is cyclical, revolving through experience, reflection, theorising and planning. In Figure 3 this is represented by the large (arrowed) circle. From this perspective, we only really learn by engaging in all aspects of the activity.

Figure 3. Movement through typologies. (after Lee 1996)


COGNITIVE
Constructing an understanding of the experience
BEHAVIOURAL
Modifying actions in the light of experience to achieve an aim.
HUMANISTIC
Interrogation of own perceptions of experience
EXPERIENTIAL
Becoming aware of things happening or that have happened

Transformative experiences, therefore, appear to be those that force us to (re)examine our world- view... (Emery & Trist, 1965, Pascale 1990). Any 'experience' is an opportunity for learning, however, as Dewey (1938) pointed out, 'It is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything depends upon the quality of experience which is had ... every experience lives in further experiences.' Vasilyuk (1984) takes it further, building the case that all learning that has a transformative effect upon us is derived from a clash between our understanding of the world and our experience, such that learning and change are painful processes of redefinition and Romanelli & Tushman (1994) offer empirical support for rapid, discontinuous change in organisations being driven by major environmental changes. Similarly, Stevens and Price argue that our changing lives necessitate re-negotiating our position with respect to the great archetypal systems, and that 'Psychopathology results when the environment fails, either partially or totally, to meet one (or more) archetypal need(s) in the developing individual.' (1966:34). In the terms of complexity theory, transformative experiences occur at bifurcation points, when the system and the environment impact in such a way that the system can either continue in its current, well travelled pattern, or shift to some way of being that is new and unpredicted (though not necessarily unpredictable). Indeed, the current analysis would suggest that the system is likely to shift to incorporate qualia of a different world view.

I have argued that there exist two main bi-polar underlying processes by which the human condition is structured, and that these give rise to four main archetypes. The processes of socialisation, or learning, emphasise particular aspects of our world view, such that the various systems or sub-systems, be they individuals, organisations or nations, have a tendency to enact the qualia of a single archetype. However, although I have talked of the qualia of the archetypes, I have deliberately failed to define them other than by example. Archetypes, by their nature, are undefinable in the scientistic sense, and also, as discussed above, the qualia are unmeasurable other than dialectically (Pascale 1990) by reference to their 'opposite'. Furthermore, that 'opposite' might be different under different occasions or interpretations. For example, in one situation it was found that the word 'conflict' was interpreted by some people to be 'contested negotiation' whilst others saw it as 'a fight to the death', and acted accordingly with misunderstanding on both sides (Lee 1998). We could extrapolate that for these people the opposite to their views of conflict would be the similar but subtly different qualities of 'easy negotiation' and 'peaceful life'. We live within our own world view yet in order to understand or even describe it we need to compare it with that of others in a dialectic manner. In other words - to know what we are, we also have to know what we are not. We can't categorise the human condition in a positivistic mutually exclusive sense, but we can use the arguments above to develop a dialectically based typology.

A metatypology has been developed, but eight pages of text are too limiting to explore it. The benefit of a metatypology based upon notions of complexity is that it helps model the variability of social form. Different parts of the system might well adopt different configurations, and configurations might change as 'needed'. The activities of the system are emergent and feed back into it (Weick, 1977), they can influence all other aspects of the system, and the system itself can be 'far-from-equilibrium' (Stacey, 1993). This approach, therefore, denies the ability to 'plan' or 'control' organisational development - it argues for a resource-based view of the organisation in which the

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role of 'managing' is fragmentary (i.e. Mintzberg, 1979) and offers a valuable critique of the established 'discipline' of strategy. In addition, because this view eschews ideas of (real) control by a hierarchy, as well as questioning the ability of the organisation to (really) predict or plan, it is more in tune with work that questions the serial and causal nature of our existence (Author & Flatau, 1996).

From Hereclites onwards (circa 500 BC) it has been suggested that humanity is in a state of always 'becoming' despite the appearance of structured categorisation and 'being' fostered by Western scientism (Lee 2001; Stacey, Griffin and Shaw, 2000). In other words, our lives are dynamic, and in a state of constant change. Fixed goals, known end points and clear delineations are tools that we use to provide a sense of stability, but that sense merely a mechanism and is false with respect to the wider reality of existence. The meta-typology, presented here with lines and detail, is merely an attempt to indicate underlying structures, those structures exist, however, not as things in themselves but are presented as a possible pattern of relationships: a representation of the relationships between other representations. As noted above, even the terminology used is just a representation. For example, Campbell and Muncer (1994) show that both occupational role and gender are indicative of whether a person views 'aggression' as a functional act aimed at imposing control over other people, or in expressive terms as a breakdown of self control over anger. Thus understanding of the word 'aggression', co-varies with the axes and will be interpreted by different readers in different ways.

HRD as the Relationship Between Representations.

As illustrated in Figures 1 and 2 above, one's view of the nature and role of HRD is dependant upon one's world view. This paper, however, suggests that, regardless of one's 'understanding', or the terminology used, that which might be called the development of human resources is actually located at the dynamic and co-creative interface between the elements of the system, and between sub-systems, such that interacting, they become more than the sum of the parts. Thus the business of HRD, in so far as it exists as a concept and a practice, is concerned with the relationship between the representations. Research into HRD is, in effect, research into the processes that underlie the human condition, and the practice of HRD is about influencing the relationships that comprise the glue of the human condition.

As we research into HRD it means that we need to be aware that we are researching the intangible and un-measurable. We can catch glimpses of what we are looking for and we can try to represent or model it – but we need to avoid the temptation to overly objectify or embody that which we research. The 'individual' and the 'organisation' are not unitary bounded concepts – they are part of a whole and are identifiable by their relationship to the whole. It is the interactions that are of importance, rather than descriptions of 'purpose'. Similarly, a change in approach requires a change in the language and meaning that is used. For example, would be inappropriate to talk of 'organisations' as if they had a body and could be anthropomorphised, or of 'people' as if they were machine cogs within 'the organisation' whose function was to 'operate' if we were to adopt a loosely bounded or relativistic view of these elements of the system.

As practitioners of HRD we intervene in the human condition with some aim in mind, yet both the *'outcomes'* and the 'value' of them are subject to interpretation. There is no longer necessarily a clear and obvious route between cause and effect - and one person's preferred 'outcome' might be someone else's feared possibility / cause. In both theorising about HRD and in the practice of HRD we can no longer assume that a particular intervention at a particular time will produce a known effect. We lose the gloss of certainty that many HRD professionals feel is necessary for their work as academics, consultants, trainers etc. HRD and learning are becoming more central to the needs of the nation (as in Watson, 1994) and this shift in provision further increases the complexity and uncertainty of inquiry into the nature (and practice) of HRD.

In Conclusion

I have suggested that there exist 'great archetypal structure' that underlie the human condition, and that these can be identified by their effect upon it, such that human society and thought clusters into four main archetypal world views, termed here, for the sake of convenience and baring in mind the fragility of language, hierarchical, normative, entrepreneurial and facilitative. The axes by which these are located are bi-polar and termed, again, for convenience, self and other, and structure and agency. I suggest that these great systems and their products are most fruitfully discussed using the language (and thus concepts) of complexity. This recognises that whilst the whole system cannot be pulled apart and understood, it can be accessed by examining the relationships between the multiplicity of representations that are located within it. Thus the study of the system is the study of the relationships within it, and that study is that which we might commonly call HRD. It follows from this that the practice of HRD is about *agency*

in a pluralistic, relativistic and interpretative world. This involves the search for the patterning of the whole, for dynamic structures, an understanding of the possibilities and their links - a *holistic* approach. Holistic agency (Lee 1996) is therefore about individual action (or non-action) within a relativistic yet structured world, and thus is about the 'doing' and 'becoming' of HRD.

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HRD Literature: Where is it Published?

Larry M. Dooley
Texas A&M University

In the chapter, "Finding and Using HRD Research", Sleezer & Sleezer found five journals containing the majority of all manuscripts published. As our field has grown since the mid 1990's, has the source of our publications changed as well? This study continued on the work of Sleezer & Sleezer to discover if HRD professionals are publishing in the same journals as they found in 1994, or if new avenues are now being pursued, such as international journals.

Key Words: Definition of HRD, HRD Literature, Publication in HRD

The theoretical bases of HRD research are multidisciplinary and disciplines such as psychology, philosophy, economics, and sociology are commonly accepted as roots of our field. This multi-disciplinary nature of HRD suggests that there is no discrete set of journals where HRD professionals publish. Bradford's Law, on the other hand, suggests that there is an essential core of journals that serves as the literature base for any given field of study and that, within that core, the most important papers are published in relatively few journals (Testa, 1997). So where does Human Resource Development fit? What are the core journals for our field and which of those journals might be considered the most important for our field? Should there be a core set of journals? Moreover, what journals publish the most papers? Prior to examining these questions, we must first discover where the majority of papers in the field of human resource development are indeed published.

A study by Sleezer, Sleezer and Pace (1996) identified 1,290 refereed HRD articles published in 258 distinct journals from 1980 to 1994 (Sleezer & Sleezer, 1997). In the chapter, "Finding and Using HRD Research", published in the *Human Resource Development Research Handbook*, Catherine and James Sleezer found five journals containing the majority of all manuscripts. These were, *Human Resource Development Quarterly, Public Personnel Management, Performance Improvement Quarterly, Journal of Organizational Behavior,* and *Personnel Psychology*. As our field has grown dramatically since the mid 1990's, has the source of our publications changed as well? This study continued on the work of Sleezer & Sleezer to discover if HRD professionals are publishing in the same journals as they found in 1994, or if new avenues are now being pursued, such as international journals.

Research Questions

Human resource development (HRD) is a profession of scholarship and practice that has continued to grow since the 1930's. As the discipline continues to accelerate, individuals in professional practice as well as academics increasingly need a literature base to support the ever-changing environment. The following questions serve as the basis for the task of this paper.

1. What is human resource development?
2. What is the literature base for the field of human resource development?
3. For individuals in professional practice, to what core journals should they have access if they want to stay on the cutting edge in the field?

Before one begins to search the applicable journals for HRD related manuscripts, it is important to offer a clarifying definition of human resource development. As there are many in the literature, this paper will operationally define HRD in the next section.

Definitions of HRD

There are almost as many definitions of human resource development (HRD) as there are individuals writing about the subject. Moreover, as the field matures, these definitions will more than likely gravitate towards a common set of constructs. In order to conduct this literature review, we must establish on e definition for HRD. One of the earlier noted definitions by Nadler in 1970, *HRD is a series of organized activities conducted within a specified time and designed to produce behavioral change*. The definition has evolved over time to include, for example, the components of training and development, organization development, and career development (McLagan, 1989).

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Training and development was integrated into the definition in 1983 by Pat McLagan: *Training and development is identifying, assessing and through planned learning – helping develop the key competencies which enable individuals to perform current or future jobs.* Chalofsky and Lincoln in 1983 added a collective learning component when they defined HRD as *the study of how individuals and groups in organizations change through learning*. Swanson in 1987 added the performance dimension when he defined HRD as *the process of improving an organization's performance through the capabilities of its personnel. HRD includes activities dealing with work design, aptitude, expertise and motivation.* McLagan added another definition in 1989 which included career development when she defined HRD as *the integrated use of training and development, career development and organization development to improve individual and organizational effectiveness* (McLagan, 1989).

As the profession moves more to an international perspective, Gary and Laird McLean introduced a definition in 2001 that was of a more global perspective, namely, that *human resource development is any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity (McLean & McLean, 2001).*

For the purpose of this study, the authors will use the definition adopted by the HRD faculty at Texas A&M University in 2001: *Human resource development is the process of improving learning and performance in individual, group, and organizational contexts through domains of expertise such as lifelong learning, career development, training and development, and organization development (Texas A&M University, 2001).* This definition encompasses the major theme areas captured in the literature of training & development, organization development and career development, while also recognizing the evolving foci of both learning and performance. See Table 1 for a listing of these definitions. The theoretical bases of HRD research can be found in areas such as psychology, philosophy, economics, and systems. From the definition above, one can see there is no discrete journal or sets of journals where HRD professionals publish.

Table 1. *Human Resource Development Definition Summaries*

Author	Definition
Nadler, 1970	HRD is a series of organized activities conducted within a specified time and designed to produce behavioral change
Craig, 1976	HRD focus on the central goal of developing human potential in every aspect of lifelong learning
Jones, 1981	HRD is a systematic expansion of people's work-related abilities, focused on the attainment of both organization and personal goals
Chalofsky & Lincoln, 1983	Discipline of HRD is the study of how individuals and groups in organizations change through learning
Nadler & Wiggs, 1986	HRD is a comprehensive system for the release of the organization's human potentials—a system that includes both vicarious learning experiences and experiential experiences that are keyed to the organization's reason for survival
Swanson, 1987	HRD is the process of improving an organization's performance through the capabilities of its personnel. HRD includes activities dealing with work design, aptitude, expertise and motivation
Smith, 1988	HRD consists of programs and activities, direct and indirect, instructional and/or individual that positively affect the development of the individual and the productivity and profit of the organization
McLagan, 1989	HRD is the integrated use of training and development, career development and organizational development to improve individual and organizational effectiveness
Watkins, 1989	HRD is the field of study and practice responsible for the fostering of a long-term, work-related learning capacity at the individual, group and organizational level of organizations.
Gilley & England, 1989	HRD is organized learning activities arranged within an organization to improve performance and or personal growth.

Author	Definition
Nadler & Nadler, 1989	HRD is organized learning experiences provided by employees within a specified period of time to bring about the possibility of performance improvement and or personal growth
Smith, 1990	HRD is the process of determining the optimum methods of developing and improving the human resources of an organization and the systematic improvement of the performance and productivity of employees through training, education and development and leadership for the mutual attainment of organizational and personal goals.
Chalofsky, 1992	HRD is the study and practice of increasing the learning capacity of individuals, groups, collectives and organizations through the development and application of learning-based interventions for the purpose of optimizing human and organizational growth and effectiveness.
Marquardt & Engel, 1993	HRD skills include developing a learning climate, designing training programs, transmitting information and experience, assessing results, providing career counseling, creating organizational change and adopting learning materials.
Marsick & Watkins, 1994	HRD as a combination of training, career development and organizational development offers the theoretical integration needed to envision a learning organization, but it must also be positioned to act strategically throughout the organization
Swanson, 1995	HRD is a process of developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance
McLean & McLean, 2001	Human resource development is any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity
Texas A&M University, 2001	Human resource development (HRD) is the process of improving learning and performance in individual, group, and organizational contexts through domains of expertise such as lifelong learning, career development, training and development, and organization development

Adapted from Swanson & Holton, 2001

Methodology

The initial intent of this study was to replicate the Sleezer and Sleezer study to determine if the outlets for HRD research have changed since 1994. Sleezer & Sleezer, in their study, searched three databases, namely, Educational Resources Information Center (ERIC), Abstracted Business Inform (ABI/nform), and Psychlit. The keywords used to search these databases were identified as *human resource development, organization development, and career development.* In their study, they found 1,290 refereed HRD articles published in 258 distinct journals from 1980 to 1994. Moreover, although the raw data were not available, it appears from the rankings that they published, that only one journal was either published outside the United States or contained an international focus in the title.

This study replicates the original study in several ways. We used the databases of Educational Resources Information Center (ERIC), Abstracted Business Inform (ABI/nform), and an analog of Psychlit, PsychINFO, in the search. Furthermore this study used the same key terms as those employed by Sleezer and Sleezer, namely, *human resource development, organization development, and career development.*

Using the above approach, our initial search yielded an unwieldy number of 38,634 references! Keep in mind, the number of findings does not necessarily translate into articles. Another influencing factor in the conduct of this search was the need to cover international journals. Since the term human resource development is not common in all countries we chose to use search terms that described the components most commonly found in the definitions of human resource development in the literature. We therefore identified the keyword/terms for international journals to be: *organizational learning, organization development, training & development, lifelong learning, career development, organizational performance, individual performance and individual learning*. Although this international search still yielded a very large number of citations, the results included only 20 distinct journals (this does not count the journals with international in the title as some of these are published in the United States), and most of these journals yielded only one article germane to human resource development.

Our next step was to examine the articles concerned. This task was accomplished by reviewing either the published abstract or the article itself, which enabled us to determine if the article was in fact one concerning HRD. Of the 3,776 manuscripts reviewed, 540 were specific to HRD. This final number of articles, if averaged per year, exceeds the number in the Sleezer and Sleezer study. The Sleezer and Sleezer study found 1,290 articles from 1980 to 1994, which is an average of 92 per year. This study found 540 articles from 1995 to 2000, which is an average of 108 per year. (This amounts to roughly an 18% increase in total number of HRD manuscripts published over this time period.)

Results and Findings

It is interesting to note that we used the same key terms that Sleezer and Sleezer used in 1994 and included some international journals in languages other than English, we found slightly more individual journal articles per year, but a lesser number of total journals than were identified in the 1994 study. By way of example, the Sleezer and Sleezer study found 258 different journals while our study identified 149 different journals. Table 2 displays the number of citations obtained by key term search and the databases searched. Each database searched is cited below independent of the others (in other words there could be duplicate citations) however the final results are not duplicated.

Table 2. *Search Results for key HR terms taken from Definition*

	DATABASES SEARCHED		
	ABI/Inform	ERIC	PsycINFO
KEY HR TERMS USED	Citations	Citations	Citations
Organizational Learning	306	100	141
Organization Development	308	7	80
Training and Development	703	2087	2093
Lifelong learning	10	666	39
Career Development	153	849	734
Organizational performance	90	16	97
Individual performance	15	18	97
Individual Learning	8	33	77

Table 2 detailed the citations from the databases using the key terms noted above. These citations were used to inform the number of articles and the respective place of publication. Table 3 lists these publications by journal title.

The Sleezer and Sleezer study noted five journals that published the most manuscripts: *Human Resource Development Quarterly, Public Personnel Management, Performance Improvement Quarterly, Journal of Organizational Behavior, and Personnel Psychology*. Of these five journals, three remained in the top five of this study.

Table 3. *HRD Publications per Journal (databases 1995-2001)*

Publication Source	Numbers Articles
Human Resource Development Quarterly	120
Journal of European Industrial Training	22
New Directions for Adult and continuing Education	14
Performance Improvement Quarterly	10
CUPA (College and University Personnel Association) Journal	8
Personnel Psychology	8
Journal for Vocational and Technical Education	6
Journal for Management Development	6
International Journal of Public Administration	4
International Journal of Technology Management	4
Journal of Industrial Teacher Education	4
Less than 4	137

Discussion

An interesting finding of this study is that the only journal sponsored by the Academy of Human Resource Development appearing in any of the databases was *Human Resource Development Quarterly*. Not appearing in any of the databases searched were *Human Resource Development International* or *Advances in Developing Human Resources*. The reason these journals did not appear in our study is because they are not indexed in the three databases we used. Perhaps our field should take the necessary steps to have our journals included in this indexing process.

The increase in journal articles and decrease in the number of journals suggests that HRD professionals are becoming more targeted in outlets that they perceive as "HRD-friendly". Unfortunately, also noted was that many of the represented journals are relatively obscure without wide readership. One reason they do not have wide readership is the subscription numbers. Some of these journals are included in membership to professional organizations where the membership is quiet low in comparison to other organizations. Indeed one of the journals recognized by the Social Science Citations Index as an outstanding publication is no longer even on the list of sources for recent HRD research, the *Journal of Organizational Behavior.*

Implications

There is a need in our field to cluster or have some sort of formal 'ranking' of journals; as well as highlighting a wider array of journals eligible for publication in by HRD scholars. As professions grow in the academics, questions are continually asked by administrators and others as to the ranking of individual programs. The answer, *programs are not ranked in our field* is generally not accepted by the more established fields of study. One of the very important criteria for ranking is the number of articles published in the top journals. While there are a number of journal ranking systems that are commonly accepted, most of the journals in which HRD research appears are not ranked. Not being ranked does not necessarily imply that their quality or impact is suspect. It is incumbent upon our field to identify what 'quality' or 'impact' means. Typical criteria for inclusion in the SSCI includes peer review, inclusion of international reviewers/board members, rate of journal citation, readership, and satisfactory reviews by scholars (Testa, 1997). While we do not suggest implementing an independent ranking system, we do believe that identifying and tracking what constitutes quality and impact for journals in our field would be useful for both academics and practitioners.

We also need to know why some journals are being published in more than others. Is the audience appeal greater for researchers for journal X and more a practitioners in journal Y? We should not code journals as research vs. practitioners; to do so would assume that practitioners do not need to read research journals and vice versa.

If HRD researchers are to make a significant impact on the organizational world, they must expand their circle of publication outlets to those that are more widely read. Having said this, however, we also recognize that some limitations in our study may have contributed to this seemingly limited circle of publication outlets.

First, the keywords we used to identify HRD publications may not have adequately captured those articles whose authors believed represented HRD research. As we noted earlier, there are multiple definitions and perspectives of HRD; although we tried to be as inclusive as possible, some research that is clearly related to HRD may not have included the specific keywords we selected. Second, the very indexes that we used to search for HRD research do not comprehensively capture all the available journals that might include HRD work. With all the indexes available, it is difficult for individuals to determine which index might have relevant articles.

Our findings caused us to realize that significant work must be done before we can more clearly answer the questions we posed about publication outlets. First, we must better understand how authors apply keywords to identify their work. We used keywords derived from a variety of definitions of HRD. But, what if authors tailored their keywords to a publication outlet that was not necessarily HRD specific? What if authors were attempting to reach an audience outside of HRD, believing that those within HRD might find their research because of name recognition in our relatively small field? This leads to another area that requires close attention.

Second, we must consider modifying our approach to uncovering HRD research outlets. We recognized that our keywords might be limiting; indeed, we recognize that there are as many definitions of HRD as there are authors. If this is the case, it is very possible that searching for research based on our *a priori* definitions will not yield accurate results. However, those who are members of the Academy of Human Resource Development identify themselves with the field of HRD. Perhaps another approach to uncovering HRD research is to begin with the names of those AHRD members who are publishing. From there we can identify the keywords they use, the outlets they selected, and expand our list of authors as well.

Third, we must look at other possible outlets for HRD research that are appropriate for our field. In other words, rather than search for existing research, we should consider looking for journals that seem to be relevant for HRD research. For example, *Management Learning*, a European journal, seeks articles that explore issues associated with learning and organizations. The *Journal of Organizational Behavior* seeks articles associated with organizational behavior, including topics such as motivation, work performance, training, job design, and career processes. There are a host of other journals that would likely be relevant for HRD research (e.g., *Human Relations, Work & Occupations, Evaluation, Organization Studies, American Journal of Evaluation, Group and Organization Management,* and more).

Finally, we should explore in more depth how we choose to define what constitutes 'high impact' for publications in our field. Many of the journals we discovered in our present study are not ranked in the Social Science Citations Index (SSCI). Because SSCI is a commonly accepted ranking system for scholarly publications, we need to decide whether or not we choose to select outlets according to these ratings. If we choose to select outlets based on other criteria that denote high impact for our field, we need to identify what constitutes high impact. Tenured and tenure-track faculty are being asked to demonstrate that they have published in high impact journals; the profession should adopt this criteria for use across the academic programs in our field.

How This Research Contributes to New Knowledge in HRD

Although this study does contribute 'new' knowledge to HRD, it provides a current pulse on some of the publication outlets for our field. Perhaps more importantly, our study shows us some key limitations to finding outlets for our work. The literature base for human resource development is limited somewhat in comparison to other more established fields, however for a growing and emerging field, it is quiet good. We found eleven referred journals that are currently publishing HRD related work. For new scholar in the field, these are the publication outlets that should be pursued.

Our third research question asked, for those in professional practice, what journals should they consider important to stay current and to allow the most current research inform their practice. This study identified two journals in particular: *Human Resource Development Quarterly and the Journal of European Industrial Training.*

We do believe that the questions raised by this study offer new knowledge in HRD. However other questions have been raised that are not answered: Why do we seem to publish in these journals and not more widely read and

cited journals? What other outlets could we seek for publication? How do we judge what constitutes a quality outlet for our work?

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Post-Millenial Discourses of Organizational Spirituality: The Critical Role of HRD.

Sharon Turnbull
Lancaster University, UK.

This paper analyses the growing interest in spirituality inside organizations through a textual analysis of a number of recent publications, many of which draw connections between spirituality to organizational performance. The paper discusses how the HRD community might respond to this trend, and concludes that in colluding with the desire to colonise spirituality as a new management fashion, we may inadvertently destroy the very meaning that the spirituality movement sets out to pursue.

Keywords: Organizational Spirituality, Organizational Discourse, Meaning of Work

Over the past few years there has been an increase in talk of spirituality in the workplace. A proliferation of literature has started to appear on the subject, ranging from self-help books sold in airport bookshops through to academic reports. In the field of HRD, some interest has also been displayed. Indeed, the Academy of Human Resource Development devoted a pre-conference to the subject in 2000, the same year as a special interest group was set up at the Academy of Management. It is perhaps no surprise that these developments should have accelerated around the time of the millennial year. Indeed, Neal (1997) has suggested that it is this landmark event that has provoked the desire for renewal and a turn to the soul. Others connect the interest with other significant current sociological and economic trends. These include a turn away from religion as a source of meaning (Novak, 1982), and a mourning of the loss of traditional communities (Heelas and Morris, 1992). Furthermore, the increasing emphasis on consumption in today's society, and the constant media-led call for us to re-invent, re-construct and re-shape our identities is thought by some to represent an assault on the conventional western, holistic view of a whole and authentic self which has for so long remained unchallenged at the heart of the modernist western belief system. (Du Gay, 1996; Mestrovic, 1997) All of these trends, felt to be the result of globalisation, technologization (Fairclough,1992), and the fragmentation of post-modern society (Bauman, 2001) can be seen to be destabilising and a direct challenge to the values that have hitherto provided a sense of certainty and security in Anglo-American society.

Despite these convincing reasons for the growing interest in spirituality, however, a first glance at the prolific literature devoted to the subject suggests that interpretations vary widely, even to the extent that they are apparently being premised on some fundamentally different assumptions.

Problem Statement

The purpose of this paper is to consider the meaning and sources of this post-millennial quest for the *spiritual*, its significance for the future of work and work relationships, and how this potentially important trend might be theorised and acted upon in the context of HRD. It will ask whether this growing interest can be described as a short-term management fashion designed by leaders and consultants to enhance performance, or alternatively as a more fundamental shift in thinking driven by disillusionment at the loss of meaning in today's society and work (Casey, 2000).Furthermore, this paper will demonstrate that the HRD community needs to be increasingly cognizant of trends which affect the cognitions, emotions and behaviours of the workforce, in order to plan appropriate responses and thus to play a critical role in today's organizations.

The paper will report on desk-based research into the way that spirituality is articulated and described by a range of sources: firstly by academics who have conducted empirical research into spirituality in organizations and secondly by practitioners and consultants engaged with the day to day challenges of running businesses. It will then examine the implications of these trends for the HRD community as a whole, paying particular attention to the varying ideological positions of those researching and performing HRD work, and attempting to take these differences into account. (Kuchinke, 2000a; 2000b).

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Theoretical Framework and Methodology

The paper engages with two significant bodies of theory. The first is the literature concerned with spirituality, soul, meaning at work, and self-identity. The second is literature concerned with the purpose, function, and values of HRD. The aim of the analysis is to ask how the former should be interpreted by the HRD community in the light of the different perspectives about the role and focus of HRD. Each will be developed in more depth in the findings and interpretation section below.

A literature review was conducted using ABI/Inform and BIDS of the most recently articles written about spirituality in organizations, using the keywords: *spirituality, organizations, managers, management, meaning, soul,* and *work*. The intention was to focus the research on literature published over the millennium period, therefore most of the literature examined was published between 1999 and 2001. Relevant articles in business and management journals aimed at the practitioner audience, as well as those written for the academic community interested in organizations, management and organization theory were sought. Focussing on a similar time period, the body of knowledge concerned with the role of HRD in our organizations was then explored, seeking particularly, but not exclusively, those which contained messages about spirituality, meaning and purpose.

Having identified a large number of relevant articles, an analysis of these texts was conducted, with a view to identifying the key discursive themes embedded in the papers, many of which were reporting on empirical research. A qualitative study of each text was carried out, identifying and coding the key narratives, assumptions and messages in each. Having identified some wide differences between the texts, as well as some recurring themes that emerged from them, the research explored the implications of these findings for HRD.

Findings and Interpretation

Despite the many articles published over the last three years devoted to spirituality, few make much headway in their attempts to theorise the concept, despite evidence of its growing importance for numerous organizational employees. The reason for this gap, and for the tendency in the literature for authors to make their own assumptions about the meaning of spirituality is undoubtedly because it is a construct that is soft, difficult to define and certainly not measurable in a scientific sense. Furthermore it has long been associated with the private domain, a taboo or personal subject (Braham, 1999) making empirical studies difficult to conduct. The analysis below attempts to interpret the meaning(s) of spirituality as it has been constructed by scholars engaging with the topic, as well as by addressing the implications of this interest for HRD theory and practice.

Attributes of the Spiritual Organization

What constitutes spirituality was found to be a highly disputed territory. Wager-March and Conley's (1999) research, for example, which is based on a literature review, professional observations, and "in-depth personal interviews with leaders of spiritually-based firms" reveals three types of attributes which lead to spirituality in the workplace. Many of these are concerned with the behavioural characteristics of the organization's leaders e.g. *honesty with self, articulation of the corporation's spiritually based philosophy, commitment to employees,* others appear to reflect the wider cultural norms in the organization e.g. *mutual trust and honesty with others, commitment to quality and service,* and finally a small number of attributes relate to organizational processes e.g. *selection of personnel to match the corporation's spiritually based philosophy.*

A focus on Values. Kriger and Hanson (1999) focus on values as being the key to spirituality, arguing that when the values at the heart of the world's major religions are found to be present in organizations this will form the basis for "healthy organizations" as they will enable both "economic and spiritual ideals to thrive". The values they select are truthfulness, trust, humility, forgiveness, compassion, thankfulness, service, and peace. These are more wide-ranging than those suggested by Wager-Marsh and Conley, yet overlap with their core themes of honesty and service. They suggest a number of steps that leaders need to go through in creating a spiritual culture: behaviour consistent with values; creating a climate where morality and ethics are truly important; legitimising different viewpoints, values and beliefs; developing imagination, inspiration and mindfulness; letting go of expectations that are unrealistic; acknowledgement of the efforts and accomplishments of others; and creating organizational processes that develop the whole person – not just exploiting current talents and strengths.

Arguably this list exhibits little difference from that of Wager-Marsh and Conley, consisting of the desired behaviours of leaders, cultural values and processes. The language of *imagination, inspiration and mindfulness,* however, is new in this paper, appearing to reflect the post-bureaucratic turn, which has led some scholars to identify a new organizational form that they have labelled the "enterprising" organization (Du Gay, 1996; Legge, 1999).

"Letting go of unrealistic expectations" is an interesting entreaty, which at first glance appears to contradict the requirement for increased imagination and inspiration. The authors base this idea on Christian parables in which Jesus called people to the kingdom of God "as little children". Paradoxically, this image suggests a relinquishing of control appearing to contradict the taking up of responsibility conveyed by the last point. It might also point to a view that in today's turbulent world, controlling events both inside and outside the organization is no longer a realistic expectation, and spirituality is more likely to be achieved if leaders accept this as inevitable.

The development of the Whole Person. The development of the whole person posited by Kriger and Hanson (1999) as an important dimension of spirituality is a discourse that reflects the modernist view of a "whole self", a self that is dissatisfied when it cannot be freely expressed. This view can be found at the heart of a number of world religions, including Christianity, and was also found strongly in research conducted by Chalofsky (forthcoming) who concluded that bringing one's whole self to the workplace (mind, body, emotion, spirit) is one of the core tenets of spirituality as defined by a number of writers. Whilst this image may suggest a sense of balance between the work, personal, and spiritual self (Chalofsky, ibid), the blurring of boundaries between work and home by corporations has also been shown to be on the increase by a number of commentators (Hochschild, 1990; Scase and Goffee, 1989; Willmott, 1993; Rose, 1989) and is often described as leading to confused identity and "stress" (Newton, 1995) as employees are asked to give up the previously long-held calculative psychological contract which dominated organizational relationships until the late eighties in favour of a moral psychological contract. Etzioni (1961) had previously ascribed the moral psychological contract only to religious, charitable, and voluntary organizations, but the new moral psychological contract has now become embedded into the ideology of many post-millenial global businesses, and appears to ask employees also to contract their "souls" (or hearts) to the organization (which many appear to relish, but others reject as intrusive).

Ethics and Morality. Kriger and Hanson's (1999) inclusion of morality and ethics as important attributes of the spiritual organization was, surprisingly, rarely found in the other literature on spirituality analysed for this study. Cavanagh (1999) proffers an explanation for this, noting that despite their parallel interest in personal integrity and moral growth, religion has not been a significant theoretical resource for business ethics.

A small number of writers, however, do concur with Kriger and Hanson and Cavanagh that ethics is an essential component of spirituality. Bierly et al (2000) for example, define spirituality as being essentially moral and emotional in nature, and Walsh and Vaughan (1993) cited in Butts (1999) focus on the development of the individual through six essential elements "that constitute the heart and art of transcendence". These traits, "ethical training; development of concentration; emotional transformation; a redirection of motivation from egocentric, deficiency based needs to higher motives, such as transcendence; refinement of awareness; and the cultivation of wisdom." are reminiscent of eastern religions, in particular Buddhist practices.

Emotions: Passion, Love and Enthusiasm. Whilst emotions are implicit in most of the papers on spirituality analysed for this study, with a few exceptions (eg. Butts, 2000; and Chalofsky, forthcoming) these are rarely made explicit. Bierly et al, however, do move into the affective domain in suggesting that it is passion that lies at the heart of spirituality:

> "Spirituality promotes passion...Along with passion comes pride, commitment, empowerment, and energy". (p. 608.)

Other recurrent emotions associated with spirituality are love (eg. Burack, 1999; and Delbecq, 1999) and enthusiasm (Milliman et.al., 1999). They also point to humour as an important aspect of spirituality, which is unusual as most treat the construct with considerable gravitas as has been indicated above.

Leadership. The role of leadership features strongly in the spirituality literature. Like Wager-Marsh and Conley, Kriger and Hanson (1999) associate their "spiritual" values with the leadership role, arguing that possessing these values is not enough; leaders must support them with activities consistent with them. This warning is echoed by Konz and Ryan (1999) and Delbecq (1999), who both stress the importance of leadership in maintaining organizational spirituality. The forms of leadership that encourage spirituality vary, however, as we have seen above. Moxley (2000), for example focuses his discussion almost entirely on leadership as partnership and shared power .

The Religious and Secular Roots of Organizational Spirituality

Many of the articles on organizational spirituality have their roots in the Christian tradition. In their study of 28 Jesuit universities, Konz and Ryan (1999) are surprised that despite being an explicitly religious institution with a

spiritual tradition of over 500 years, and the commitment to promoting spirituality "the development and maintenance of an organizational spirituality is no easy task". (p. 209)

Delbecq (1999) takes a more positive, but also explicitly Christian view of the expression of spirituality:

"The unique and personal inner experience of and search for the fullest personal development through participation into the transcendent mystery. It always involves a sense of belonging to a greater whole, and a sense of longing for a more complete fulfilment through touching the great mystery." (p. 345)

In this definition we see a move away from the quest for the whole self, into self which finds union with a greater Being, in this case a deity. An emphasis on Christian theology, however, is not the only form in which spirituality is found in the literature. Braham's (1999) study, for example, features a number of CEOs, all of whom selected as being spiritual leaders. Amongst his sample (along with a number of Christians) is a Hindu leader of a major corporation in silicone valley. Butts (1999) has identified a growing interest in Asian religions (see also Millar, 2000) in organizational practice, and others have identified a growing interest in New Age spiritual practices (Casey, 2000; Bell and Taylor, 2001; Heelas,1996) as well as in humanist ideologies (Kahnweiler and Otte, 1997).

Spirituality as an Individual or a Communal Pursuit?

Despite the broad and varied conceptions of organizational spirituality which attribute both religious and secular meanings to the concept almost interchangeably (see for example Bell and Taylor, 2001), few studies have attempted to differentiate between the concepts of spirituality which have arisen from these very different roots, nor indeed to ask how the concept of *spirituality* might differ from that of *religion*. One exception is Mitroff and Denton's (1999) empirical study which found a societal shift away from valuing community in favour of valuing autonomy (also echoed by the work of Bauman, 2000):

"religion is organised and communal, contrasting with spirituality which is highly individual and highly personal" (Mitroff and Denton, p. 87).

These findings are supported by much of the literature on spirituality analysed in this research. Indeed, Cavanagh (1999) criticises the literature for this emphasis on the individual, which he attributes as much to evangelical Christianity as to the New Age movement, both of which emphasise the relationship between the self and God (or gods), paying little attention to the importance of organizations or the common good. Freshman (1999) supports Cavanagh's findings. Her own thematic analysis of survey responses found that spirituality is seen as uniquely individual, with the word "personal" occurring several times in the words of her respondents.

The literature on spirituality in organizations tends to oscillate between an emphasis on the individual and an emphasis on the whole community, with some papers stressing one or the other, and others mixing both perspectives. Whilst an emphasis on the individual is most commonplace, this is not exclusive, and as has been demonstrated, there are many instances in the literature of attention to communal and organizational activity under the banner of spirituality.

Why is the Spirituality Discourse Becoming Increasingly Popular in Organizations?

*It appears to offer meaning in work.*Casey (2000) has sought to explain this trend. Pointing to the influence of the New Age movement, she finds this interest manifested particularly amongst professionals whom she sees as being disaffected by "modern economic hegemony" (p. 6). The quest for spirituality is, she suggests, a way that corporate employees are finding "to resist, counter, or escape the self-identity erosion composite of intensified corporatization".

Cash et al (2000) also focus on explanation rather than prescription, finding like Casey that "many employees appear to be searching for greater meaning in their workplaces". They attribute this quest to a range of causes from the impact of technologies and workplace restructuring to the hypothesis that the "baby boomers who came of age during the idealistic 1960s and 1970s are now a large part of the workforce". (a proposition also suggested by Neal, 1997 in Cavanagh, 1999)

Chalofsky (2000) believes this is only part of the picture:

"The baby boomers are going through mid-life questioning the meaning and purpose of the work and their lives. The twenty somethings are questioning whether they even want to start down the path their parents took, career-wise, and are making different choices about the role of work in their lives".

Like Casey (op. cit.), both Cash and Chalofsky also attribute the spiritual turn to feelings of disillusionment. Casey attributes this to the "totalizing organizational rationalities and concomitant configuration of self-identity". Cash et al (2000) as a result of widespread and pervasive feelings of distrust of business "many fear losing their jobs, getting cancer, being victims of violence and dying alone. They hunger for a deeper meaning to life".(p. 125) Cash et al, conclude by arguing for the encouragement of a spiritually and religiously expressive society.

*It Appears to Provide Identity.*The eclectic mix of religious and secular roots of the spirituality discourse in organizations has been described by Bell and Taylor as a "21st century spiritual supermarket". This consumption-based imagery portrays spirituality and the forms in which it appears in organizations as an example of the post-modern consumer choice which, as Du Gay (1996) has persuasively argued, pervades every aspect of our organizational life today. His research on identity at work found that the desire to possess and consume is highly influential in shaping identity in today's society and that this is reflected in organizational life. This reading of spirituality suggests that even such an aspirational concept may be simply a short term fad which reflects the latest social aspirations, in danger of being in vogue for a short while, but then dropped and replaced by a new, more exciting concept.

Vaill admonishes the academic community for a preoccupation with "behaviours and attitudes we can measure" which has meant that " we have missed the spiritual need and spiritual feeling". This, he says is systemic; it is part of what it means to be human and doesn't differentiate itself as an attribute or a competency." He goes on:
"Reductionism has pushed Spirit out of our inquiry although-Deo gratia-it cannot push it out of the phenomenon!" (p. 115)

*It Facilitates the Development of the Whole Person.*Cavanagh (1999) notes the separation that business people often feel in their lives as a result of feelings of separation from other people, alienation from their work, and lack of meaning in their lives. This he attributes partly to the compartmentalisation of work, family life and faith, with the large part of time available being given to work often with an hour at weekends for worship.

Chalofsky argues that spirituality can help to overcome this tension:

> "The integration of the total self means that there is an alignment between the person's beliefs, values, and competencies, and the purpose for the work (and hopefully the mission of the organization). This alignment translates into an inner feeling that this is the work I was meant to do and this is how I was meant to live my life." (2000, 4-3)

This emphasis on the quest for self-understanding is identified by Butts (1999) in his editorial comments for the special issue of Journal of Organizational Change Management:

> "Business owners, managers, policymakers, and academic researchers all need to remember, as many surveys indicate, that tens of millions of world citizens are hungering for transmaterial, mind-expanding, soul-enriching, and heart-centred (spiritual) values" (p. 328).

However, he goes on to see the performative potential of such "hunger" in the workplace, suggesting that this can be harnessed to maximise human capital through cultivating these values in a learning organization (Senge, 1990) or through developing emotional intelligence (Goleman, 1995).

Spirituality as Enhancer of Performance?

One of the most recurrent themes to appear in the literature on spirituality is that of organizational *performance*. Spirituality in many of the articles studied was presented as "the holy grail", the solution to all organizational problems, and a catch-all replacement for previous management fads, many of which are considered to have failed due lack of commitment or consistent behaviour. These *performative* articles, apparently written with the explicit intention of assisting leaders of organizations to *become* more spiritual and therefore, it is assumed, more successful contain various prescriptions for the workplace. Wager-March and Conley (1999), for example, typify this genre in their article "The fourth wave: the spiritually-based firm". They seek, as shown earlier, to provide a formula for success in this quest. Milliman et al (1999) clearly state in their Abstract that they are looking at how spirituality in the workplace can be "used" and "developed to the advantage of organizations". (p.221) They go on:

> "We believe that the issue of whether spirituality can have a positive impact on both employees and organizations is particularly important because many chief executive officers (CEOs) will not justify a practice unless it favourably impacts on the bottom line." (p.222)

They then suggest a direct and pragmatic correlation between spirituality, emotionality and performance in the following proposition:

> "Company spiritual values that tap both the mental and emotional aspects of employees will be more positively related to employees' work and spiritual attitudes and organizational performance than company values which only tap the mental aspects of employees" (p. 230)

There is little in any of the articles cited above, however, nor indeed in any of the other articles analysed, to suggest that there is evidence that a company that becomes more spiritual will necessarily "thrive" (Kriger and Hanson, 1999) and become healthier. Whilst the claim linking spirituality with economic prosperity is common (see

also Neal et al, 1999) it is often glossed over and its positive associations taken on trust, largely based on the authors' claims that these tenets are common across all world religions and must therefore have substance.

Bell and Taylor (2001) also note the performative intentions of much of the literature on spirituality. They are critical of this, however, suggesting that the current interest in workplace spirituality is "an extension of the corporate culture movement" since it too appears to be attempting to "engineer the soul" and thereby secure employees' emotional as well as mental and physical participation.

Conclusions and Implications for HRD

The concept of spirituality has been shown to have proliferated in its appeal to both scholars and practitioners over the years at the turn of the millennium. This analysis has demonstrated that the meaning given by scholars to this construct varies widely both in its origins and in what it encompasses, and that the origins of the concept can be traced back to a number of roots, including a number of religious and neo-religious sources. Its appeal to individuals has been shown to lie in the possibilities that it offers to create personal identity and social meaning in an otherwise increasingly secularized, instrumental and post modern world. However, it has also been demonstrated that the concept has already been colonized by those for whom the performance motive overrides all others.

The connection between spirituality and performance remains unclear. It is taken as a given by many, and sought after by others. However, none of the research analysed was able to offer any convincing evidence to demonstrate this proposed relationship. The desire by organizations to capitalise on the human need for meaning has been shown to be paradoxical, particularly as Casey has suggested that one explanation for its current popularity lies in the loss of meaning inside today's corporations. Certainly, Casey has identified a backlash to the totalising effects of "rational instrumentality and secularisation" which led organizations to consider people simply as "human resources" who are "assumed to learn at work for the good of the organization and its production imperatives and for the advancement of their skills for careers in such organizational activities".

As Casey's findings have suggested, it is senior management's need to control the workforce by whatever means available that appears to have initiated the quest for spirituality by those seeking to loosen the hold of the corporation and to find meaning beyond it. Indeed, this reading of spirituality's current popularity suggests that such instrumentalism may be seen to be *creating* the very hegemony that has itself spawned its own opposition in the guise of the quest for spirituality.

It is clear that such attempts to instrumentalise spirituality for performative intent are in danger of destroying the very meaning they set out to commodify. Not only does this colonizing of the spirituality discourse for purposes of control clearly diminish its potential to bring joy to organization life, it is also likely to accelerate the disillusionment and cynicism found inside many organizations, as a result of the constantly changing management fads and fashions.

This paradox is a central finding of this paper, and presents a major challenge for HRD, both in terms of theory and in the practices that we espouse. Similar to the rhetorics that associate culture with performance, we in the HRD community need to beware of blindly pursuing the latest "holy grail" to performance enhancement, only to create more disaffected employees in the longer term.

If HRD undertakes to re-focus its interest in spirituality on enhancing the quality of individuals' organizational lives and the meaning they find in their work, and to safeguard the authenticity of this quest by refusing to support the cynical colonizing of the rhetoric of spirituality, we can make some significant strides forward in our understanding of the social processes that affect today's organizations. Such attempts to colonize would lead the HRD community into an empty and meaningless pursuit of a new management fad which, like many of those now past, would quickly be identified by recipients in organizations as inauthentic and a clandestine attempt to control.

We must, however, also challenge the potentially false dualism of spirituality as *either* focusing on performance *or* on individual meaning. This will clearly lead to polarized positions that arguably need not be inevitable. These perspectival differences in the literature on spirituality are clearly mirroring current debates over the nature and beliefs in HRD (Ruona and Roth, 2000). The human quest to find meaning in work, and the parallel desire to capitalise on this quest and harness it for performative gain parallels the ongoing debates on the role of HRD as developers of individuals on the one hand and organizations on the other and raises important issues for HRD's response to the growing interest in organizational spirituality.

Kahnweiler and Otte (1997), for example, take a strongly humanistic view on the value of spirituality for HRD practice, focusing almost entirely on the transcendence of the individual:

> "If we want to discover the myths capable of energizing and directing the field of HRD for the good of humanity and the earth, it seems prudent not to sit down and work at it. Rather it may be best to relax into it,

opening ourselves to images and ideas of the future that emerge from the unknown sources of creativity. Then we can discuss what has bubbled up with colleagues in the field." (p. 173).

They do, however, also attempt to connect this project with organization goals:

"The theory is that by helping individuals, the work groups they are part of will perform better, and their whole organization will perform better"

Although this rationale is never further developed in their paper, it is persuasively championed by Chalofsky (forthcoming) who shares the same starting point as Kahnweiler and Otte (1997), but makes a strong case for the connection between the growth of the individual and the flourishing of the work organization:

"In this age of the "new employee contract" we need to pay attention to. . . our whole selves at work, to admit that some work has no meaning to us and offers no possibility of joy, to examine what work will have meaning to us and seek such work, to meet our co-workers self-to-self, center-to-center, and to stop pretending that our interior lives don't matter. (Only then) will our work become more joyful (and) our organizations will flourish with commitment, passion, imagination, spirit, and soul (Richards, 1995, p.94)

When the emphasis on performance is paramount over all else, employees gradually lose the meaning of their work. Such loss of meaning affects attitudes, behavior, and overall mental health. Our profession needs to search for and implement new workplace models that address work as both a vehicle for production and individual and social development and satisfaction.(Svendsen, 1997)."

This is clearly a very different message from those criticised by Casey (2000) and Bell and Taylor (2000) for harnessing the rhetoric of spirituality simply for instrumental purposes. Indeed Holton (2000), who has long stressed the importance of linking employee expertise with the strategic goals of the organization (1999) has also argued that there is much common ground between the learning school of HRD and those pursuing organizational performance. Both Chalofsky and Holton have concluded that this common dualism is unhelpful for HRD, and consequently for individuals in organizations.

This paper has demonstrated that if HRD is to demonstrate its authenticity and its vital role in supporting theory and practice, it will need to reject all forms of meaningless instrumentalism. Instead, a focus on finding more effective models for enabling fulfilment at work for the individuals in organizations must be our prime goal, whilst recognising that this pursuit need not interfere with, and assist in the production of effective work organizations.

Despite the profusion of literature on the topic, further research is clearly needed into the meaning of spirituality for both individuals in organizations, as well as its impact on the well-being and functioning of organizations. We also need a means for critically analyzing and understanding the discourses that relate spirituality to performance, in order to make transparent those inauthentic attempts to colonise spirituality and the soul solely for instrumental gain, as well as to better understand how meaning and performance may be more successfully interwoven.

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Professional Crisis Workers: Impact of Repeated Exposure to Human Pain and Destructiveness

Lynn Atkinson-Tovar
Northern Illinois University

This paper discusses some of the issues related to the impact on professional crisis workers when exposed to repeated human pain and destructiveness in the course of their work lives. It is a brief summary of the limited literature on the two prevailing effects of repeated exposure predominately gathered through studies on therapist, however the author identifies other crisis workers who's effect of repeated exposure to trauma needs to be researched further.

Key words: Repeat Exposure, Crisis Workers, Affect of Trauma

The United States and the world changed forever Tuesday September 11, 2001. Today, more than ever HRD must acknowledge the area of trauma and how it effects crisis workers who are repeatedly exposed to human pain and destructiveness. These are the people who have chosen a career in helping others deal with pain and trauma but do not realize or recognize how what they see, hear, smell, taste and feel affects them on a daily basis. Their responses to human pain and destructiveness are so subtle and long-term that they do not realize what is happening to them until they begin to lose what is most important in their lives: their families, friends, health, spirituality, honor, commitment, and sense of self-worth. Life experience(s) have always been an important component of adult learning theories (Dewey, 1983; Knowles, 1970, Kolb, 1984). A number of studies have also identified job experience as a powerful stimulus for organizational and managerial development (Morrison, 1986). Morrison (1986) posed that on the job work experiences, rather than formal training events, were the main source of development for individuals in organizations. Contextual features of this type of development, such as the presence of organizational support, appear to be critical. It is incumbent upon HRD practitioners to help these organizations, which are comprised of crisis workers who devote their careers to helping others. HRD must have an understanding of what these men and women are doing on a daily basis and how it affects their lives and those around them. The acknowledgement of the organization to provide resources and direction through HRD is critical in the well being of their employees who deal with crisis daily. The development and continued education through employee assistance programs or peer counseling is a beginning, however HRD has the responsibility to the crisis workers as well as the organization to strive for personal acceptance and organizational development. They need to recognize how trauma affects them, both in their professional and personal lives (Kates, 2001).

Looking at the Literature: Daily Trauma in the Workplace

Stress is an always-present component of our lives. Factors such as the pace of current technology, economic instability, complexity of interpersonal relations, and the ever-growing crime rate have produced a society that must respond to a barrage of problems and changes in a timely manner. Constantly, individuals are asked to take on more and more responsibilities and become increasingly more efficient at the performance of their job (Senkor, 1995). The increased complication comes with the factor of exposure to traumatic events during the course of a day. However, HRD has the role of a change agent in the development and well being of the employee. HRD practitioners have the responsibility for the induction of interventions designed to bring about organizational change through people. Every organization today is seeking ways to address problems that affect performance. Ovaice (2000) stressed the importance of considering human factors when discussing organizational performance. All organizations possess cultural norms that frame expectations and influences strategic support and perceptions of effectiveness. With crisis workers and their ever changing professional life of trauma exposure requires the HRD practitioner to be an aggressive change agent to maximize the effectiveness of interventions as well as improve communications and relationships.

This paper will examine secondary and vicarious traumatic stress disorder and the role HRD professionals can influence through their understanding and effectiveness in program development. There has been sporadic attention given to the caring professionals; medical, social sciences, family therapy, law

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enforcement, and psychological literature to the phenomenon referred to as secondary/vicarious traumatic stress disorder. So it is prudent that HRD take a closer examination into the development of strategic assistance mechanisms for professional organizations that can be affected by stress related performances from their employees. Helping organizations offer a greater challenge to HRD professionals in that they are so resistant to accept assistance from those who they believe do not understand their unique culture. There is a vast amount of literature, which describes a variety of stress related areas, however the literature is limited in the area of those crisis workers who are repeatedly exposed to human pain and destructiveness. In this review of contemporary literature the author will cite and describe specific impacts to professional workers and their organization when exposed to human pain and destructiveness in the course of their work lives. The paper provides a look into the two potential stress related outcomes for crisis workers exposed to repeated trauma that HRD practitioners might be able to influence through program design and alternative thinking. Further research is required in examining the outcomes of active HRD program development to demonstrate employee change and effectiveness. After reviewing the literature on the effects of trauma to crisis workers, it appears there is no set course or path a professional might follow; however, the dilating factor is the severity of the symptoms and treatment. Researchers (Matthews, 1987) agree, generally, that people-oriented occupations are more stressful than occupations which require persons to work alone or in small groups with data because they are more predictable rather than people who are unpredictable (Farber, 1983: Gherman, 1981; Maslash, 1982: Pines & Kafry, 1978). Matterson and Ivancevich (1982) reported a study, which showed that individuals having responsibility for other people suffered from more heart disease than individuals who had responsibility of objects. Stressors do affect workers differently because of a number of genetic and environmental factors, such as personality type; metabolism rate; physical condition of the body as a result of exercise, rest, and disease; and the use of self-regulation techniques; however, stress has been associated with a number of practices, which occur within the organization itself. Because people-oriented occupations are in a variety of work settings and involved numerous types of interactions, it seems plausible that different work environments impose more or less of the practice associated with stress. Matthews & Casteel (1987) did a study on stress and the workplace; a comparison of occupational fields. The study examined if persons in different people-oriented occupational fields would have significantly different scores by comparing crisis workers such as the health and social services fields with banking and industry. They found that most people believe their jobs are stressful, however the study showed especially those who work with children, the needy, and physically ill, feel their environment is more stressful, and they have a higher burnout rate.

Secondary Traumatic Stress Disorder (STSD)

Secondary traumatic stress disorder can be defined as "the natural consequent behavior and emotions resulting from knowing about a traumatizing event experienced by a significant other-the stress resulting from helping or wanting to help a traumatized or suffering person" (Figley, 1995, p.7). Therefore, STSD has symptoms nearly identical to post traumatic-stress disorder (PTSD), except that exposure to knowledge about a traumatizing event experienced by a person is associated with the set of STSD symptoms, and PTSD symptoms are directly connected to the sufferer, the person experiencing primary traumatic stress. Symptoms under one month duration are considered normal, acute, crisis-related reactions. Secondary traumatic stress disorder is a natural consequence of caring between two people, one of who has been initially traumatized and the other of whom is affected by the first's traumatic experiences. These effects are not necessarily a problem but a natural by-product of caring for traumatized people (Figley, 1995). There as been a side range of STSD symptoms documented in crisis workers. The literature exemplifies diverse occupational samples, differences in measurements, differing traumatic event factors, and degree of proximity to harm, as well as mediating contextual variables and workers characteristic (Beaton & Murphy, 1995). Crisis workers perceive a role conflict when they themselves must seek help. They feel out of control, weak, and vulnerable, and their self-worth may be in question. Furthermore, most crisis workers consciously and unconsciously use defense mechanisms such as denial, repression, black humor, and suppression, to deceive themselves, as well as others (Beaton & Murphy, 1995). A second barrier is that often times family members, and co-workers cannot detect symptoms as secondary trauma because they are subjective in nature. Family and friends find it difficult to understand because they believe that the crisis worker must have known what they were getting themselves into. Crisis workers often will second guess their decisions, engage in self-blame, and become depressed. "Finally, traumatized crisis workers are subjected to more stigma than most victims. Their traumatization is troubling to their supervisors and co-workers since it reminds them it could also happen to them" (Beaton & Murphy, 1995 p.75).

Vicarious Traumatization

The concept of vicarious traumatization, introduced by McCann and Pearlman (1989) provides a theoretical framework for understanding the complicated and often painful effects of trauma work on therapist, however the theory can apply to crisis workers in general. Previously stated, secondary traumatic stress disorder was described as the responses of individuals to hearing about other peoples' traumatic experiences. Vicarious traumatization includes the symptoms of STSD in the context of profound changes in the crisis workers sense of meaning, identity, world-view, and beliefs about self and others. However, even though there is some overlapping between STSD and vicarious traumatization the differ lies in the focus and emphasis. Vicarious traumatization, (Pearlman & Saakvitne, 1995) refers to transformation in the crisis workers inner experience resulting from empathic engagement with clients' trauma material. Through exposure to graphic accounts such as child sexual abuse experiences and to the realities of peoples' intentional cruelty to one another, and through the inevitable participation in traumatic reenactments, the crisis worker is vulnerable through their empathic openness to the emotional and spiritual effects of vicarious traumatization. These effects are cumulative and can be permanent, evident in both crisis workers' professional and personal life. Crisis workers acknowledge they entered this type of work by choice, and continue because of their commitment to others and the tremendous rewards of helping others, recognize that it affects them personally. It is an occupational hazard that must be acknowledged and addressed.

McCann & Pearlman's (1989) recent research in vicarious traumatization focuses primarily on the portion of the theory that describes psychological needs and cognitive schemas. The cognitive portion of the theory is based upon a constructivist foundation. The underlying premise is that human beings construct their own personal realities through the development of complex cognitive structures, which are used to interpret events (Mahoney, 1981). Piaget (1971) describes these cognitive structures as schemas. These schemas or metal frameworks include beliefs, assumptions, and expectations about self and world that enables individuals to make sense of their experiences. These cognitive structures evolve and become increasing more complex throughout your life span. McCann & Pearlman's major hypothesis in their research is that trauma can disrupt these schemas and that the unique way that particular trauma is experienced depends in part, upon which schemas are central or salient for the individual (1989). Vicarious traumatization is unique to trauma or crisis workers, because first, traumatic events such as child sexual abuse are painfully real and part of our larger world and society. If crisis workers are to help, they cannot protect themselves from acknowledging this reality as they listen to the victim's stories. Crisis workers are left with the powerful affects stirred as they face this reality on a daily basis. Secondly, trauma or crisis workers inevitably become aware of the potential for trauma in their own lives. Traumatic events can happen to anyone, at any time; it is almost intolerable however to accept the fact that lives can be permanently changed in a moment when a traumatic event occurs. And, thirdly often times crisis workers have gone into the profession because they were victims of trauma, such as childhood sexual abuse, and it is reminder of their own painful experience(s). Crisis workers are often helpless witnesses to current reenactments of traumatic memories, which can be an excruciating experience. These reenactments can be expressed at many levels: behavioral, emotional, and physiological (van der Kolk, 1989).

Assessing Vicarious Traumatization

Trauma disrupts the self in specific ways, disrupting the frame of reference, which is an individual's sense of identity, central beliefs in the world, and spirituality. The loss of a familiar sense of identity is disturbing and often times a by-product of a crisis workers profession. Often the crisis worker will question who they are as a professional, a man or women, husband or wife, parent or child. They can also lose their central belief in the world, the way they understand the world, including, life philosophy, and moral principles. For example, world views can be challenged including the beliefs that people behave according to a set of values, that the world is fundamentally just, that people can influence outcomes in their lives, that the future is bright, and so forth (Pearlman & Saakvitne, 1995). Being that crisis workers are exposed to prevalence and acceptance of violence, cruelty, and bigotry, the emergence of cynical beliefs about the world, such as the idea that life events are random or that people are basically malevolent or selfish, is not uncommon (Janoff-Bulman, 1985) which is the central symptom of vicarious traumatization. The worst symptom however of vicarious traumatization is the loss of a sense of meaning for one's life, a loss of hope and idealism, a loss of connection with others, and a devaluing of awareness of one's experience...spirituality. Pearlman and Saakvitne (1995) believe the larger sense of meaning and connection is crucial psychological well being in general and disruption in this realm may be the most troubling, and perhaps the least explored. Crisis workers who work with victims are exposed to the many cruel ways that people deceive, betray, or violate the trust of other human beings. They become suspicious of other peoples' motives, more cynical, or distrustful, sometimes expecting the worst from people. Personal safety becomes an issue especially those crisis

workers who work with victims of crime, might experience increased thoughts and images associated with personal vulnerability, such as a love one being killed in a car accident, or over time may experience an enhanced awareness of the fragility of life. There can be a disruption in psychological needs, safety, trust, esteem, control, and intimacy, which motivates behavior which are particularly susceptible to change through traumatic experiences (Pearlman & Saakvitne, 1995). Understanding that adults learn primarily through the acquisition of knowledge by study and/or experiences the HRD expert must foster improved performance so that the organization can function efficiently in the personal growth and development of employees. Applying the Humanistic approach to crisis workers and their unique work environment maintains that all people are unique and possess individual potential. "It also maintains that all people have the natural capacity to learn; thus, the purpose of learning is to encourage each individual to develop to his or her full unique potential (Gilley, 1989 pp121)" "Based on life experiences, people develop beliefs founded in these needs and their ability to meet them, which, in turn, shape their perceptions of new life experiences. When, as a result of trauma, an individual believes certain basic needs cannot and will not ever be met (e.g., "I am never safe, " "People are not trustworthy, " " I am not worthy of being loved"), these beliefs shape relationships, identity, and access to hope or despair" (Pearlman & Saakvitne, 1995, p. 162). Vicarious traumatization has a profound effect on a crisis worker's interpersonal relationships; if they believe that others are not trustworthy or valuable for example, it is difficult to have a rewarding relationship. Similarly, one's belief about oneself can also lead to interpersonal disruptions; social withdrawal, inability to tolerate the wide range of feelings necessary to maintain intimate relationships, feeling alienated from intimate friends and sexual partners because of their unique work, inability to enjoy common forms of entertainment, or one can become less available to others because of the demands of work (Pearlman & Saakvitne, 1995). This area of understanding is critical for the HRD change agent; the lack of trustworthiness and relationship development complicates the program design potential learning experience.

Future Research Questions

There is a cost to those who are in the caring and crisis profession. "Professional who listen to clients' stories of fear, pain, and suffering may feel similar fear, pain, and suffering because they care" (Figley, 1995, p.1). There as been sporadic attention given to the caring professionals even though there is clear identification of the phenomenon of secondary traumatic stress disorder in the DSM-III and DSM-IV, however nearly all the attention has been directed to those people in harm's way rather then those who care for and worry about them. Research questions that need to be addressed.

- How can HRD practitioners make a contribution to change within the crisis worker and his/her personal and professional development?
- How can learned experiences from trauma exposure be affected through program development and design?
- How can HRD and management build a working relationship of trust to assist their employees through difficult times of stress?

Discussion and Implications to HRD

HRD practitioners must perform several different activities and duties, such as design, develop, and implement learning programs and training activities within an organization. Without the understanding of what crisis workers are exposed to and the effect the trauma causes in their professional and personal lives HRD cannot and will not make an impact to the organization. They need to understand in order to make a needs assessment as well as an evaluation of programs involving the crisis worker learner. Human resource development implies the development of people in an organization as well as financial and capital resources. Since HRD is the development of people within the organization, it is critical for the well being of the organization for HRD practitioners to face the day-to-day events of the crisis worker and their lives. "The development of the people refers to the advanced knowledge, skills, and competencies, and the improved behavior of people within the organization for their personal and professional use (Gilley, 1989, pp5)." The role for the HRD practitioner is their commitment to the professional advancement of people within the organization through career development and understanding to bring about change within the crisis worker.

Embarrassment and fear may prevent crisis workers from seeking support from family, friends, or outsiders (Kates, 2001). The idea of asking for help from anyone let alone an outsider is unsettling for several reasons, first usually the "macho" value of their occupations. There is a kind of natural personification, which makes many crisis workers resistant to seeking help. Men and women who gravitate to specific crisis occupations, such as police

officer, fire fighter or emergency medical worker believe you do not talk about your problems; you do what you have to do. Secondly, crisis workers resist seeking help due to a unique and overwhelming phenomenon of secrecy, which permeates many of their cultures. Secrecy for crisis workers stands as a shield against the attacks of the outside world; against bad media reports and against public criticism. Secrecy is loyalty, it represents sticking with their group, and its maintenance carries with it a profound sense of participation. Secrecy is solidarity; it represents a common front against the outside world and consensus in at least one goal (Westley, W. 1970). Social interaction of groups in any crisis occupation is important after a traumatic event to help reduce psychological symptomatology. Lindy, Grace, & Green (1981) first described this function as the "trauma membrane" effect, where a network of trusted, close persons served to protect traumatized persons from further distress (Violanti, 1997). However some experts believe the key to handling stress maybe the ability to disconnect from their secret world-to see their work as a job not an identity. Measuring stress and coping can be quite a challenge for the organization and the HRD professional, much of the significant activity goes on "between the ears" and thus is not readily observable. Though most crisis organizations offer some type of counseling either through an employees assistance program, peer support group or health insurance, taking advantage of them can kill a career. Crisis workers have realize organizations have used information gathered by psychological services to weed out certain workers. Any crisis worker who admits to feeling depressed or enraged feels they put their career in jeopardy, or at least risks being transferred to a desk job (D'Antonio, 1999). Crisis workers may need to ask for help, it does not mean you have to do it alone, it also may mean seeking medical or psychological assistance. Violanti (cited in 1996 p.103) has developed a four-phase basic stress HRD model, which many organizations have adopted. The phases are (1) educate, (2) prevention, (3) support, and (4) research. A well-rounded stress education program should include identification of stress, the value and techniques of physical exercise, the benefits of proper nutrition, and the exposure to interpersonal communication methods. It is important to begin the education during the first phase of a crisis worker's career, however during the in-service level, instruction on coping strategies should take priority because these workers have most likely already been exposed to the effects of stress. Understanding the relationship of crisis workers and their fear of acknowledging stress related to their work has several implications for HRD professionals. First, as HRD professionals tend to serve increasingly as change agents and internal consultants within organizations, those who work within the crisis field need to build a trusting relationship with the crisis worker in their day-to-day communications. Trust becomes a foundation in a joint commitment to the organization and the citizens they serve, which results in the proficiency and effectiveness of the crisis worker. The HRD professional will have to identify the implications of these day-to-day communications through their trust of the unique culture and the development of specific programs through instructional design, training and counseling. Schurr and Crane (1985) suggested trust leads to "a constructive dialogue and cooperation in problem-solving, facilitates goal clarification, and serves as a basis of commitment to carry out agreements (pp.9)."

Support from the crisis workers' organization and family is a critical factor in the troubled person's decision to seek help. Many organizations are utilizing employee assistance programs, which provide 24-hour service calls and confidential counseling. In addition, psychological debriefings can be an important technique in helping crisis workers with traumatic events. Providing debriefing soon after an incident allows the crisis worker to vent their feelings and discuss the occurrence in a supportive group setting (Mitchell, 1990). Peer support groups consisting of professionals in the same occupation, not psychologist who are primarily there as someone to talk to. These support groups or individuals can assist members involved in a traumatic incident or continued exposure to trauma. Each organization is, in a sense, unique and has its own set of stress related problems. It is therefore necessary to conduct ongoing research into the causes and minimization of stress. More research into the implications of repetitive and addictive traumatic stress phenomena is also required to augment support and psychological strategies.

Conclusion

Stressful traumatic events or repeated exposure to traumatic incidents can be described as unusual occurrences involving exposure to events that are sudden, overwhelming and emotionally challenging. The past decade has witnessed a growing recognition that the professionals who are called upon to assist those affected by traumatic events can themselves become secondary victims. Occupations such as police work, fire fighting, emergency services, hospital, health and social services, mental health professions, and rescue workers may be more susceptible to traumatic aftereffects as a result of either primary or secondary involvement with trauma. Perhaps the most important dimension of this exposure to a traumatic event(s), whether direct or secondary, is that a consequence is usually atypical in nature, its intensity and duration may cause the crisis worker to be unable to draw upon previous learning, training, or experience to help them understand the event or their reaction to it (Paton, 1996). Exposure to such an event can trigger feelings and emotions which, are normal in the context of the traumatic experience, can be

difficult to understand and manage. If these feelings continue over time, dysfunctional reactions can occur and affect their well being, their families, and their organizational performance.

Preparation for potential critical occupation workers makes good sense. As a result of the horrific terrorist act committed against our nation, the trauma crisis workers are being exposed to have been forced to the front pages of many newspapers. HRD experts in many of the crisis workers organizations are being catapulted to action with little knowledge of how to help. HRD practitioners cannot wait for a tragic act to propel them toward program design; employees are being exposed on a day basis. While members of these high-risk occupations may possess the technical skills required to meet the needs presented by victims, their own training may not provide them with the psychological and self-maintenance skills required to readily comprehend their traumatic experience or to understand and deal effectively with the aftereffects. Many of these crisis workers are unprepared for their own feelings about the incident. They have been trained to help others but not to help themselves. If help is not sought, or if their organizations fail to recognize and respond to the ensuing traumatic reaction, their well being can be threatened. The cost not only to the worker but also to the organization if they fail to recognize the potential effect on workers can be substantial. Projections indicate that hundreds of crisis workers from the New York area will leave their jobs due to their recent trauma exposure. They may experience long term personal stress related damage, however their departures will also ultimately effect the organizations; many such as the New York Fire Department can not afford to have further lose of employees. Trauma can generate contagious effects. This ripple effect extends the circle of impact into the whole organization and the surrounding community. The potential impact on the crisis worker, staff, and others and the cost and performance problems generated within critical occupations signals the importance of recognizing the existing and implications of psychological trauma. Organizations and their HRD professionals must acknowledge that education, prevention, intervention, support and additional research is required to deal with the problems that crisis workers exposed to traumatic events pose for the worker, the organization and the community as a whole. Recognition, preparation and treatment for those affected will help to alleviate this hidden problem and ensure, that, in the course of extending professional assistance to others, the members of these crisis occupations do not suffer unnecessarily. It is the role of the HRD professional to have an understanding of the unique culture of the very self-protecting crisis worker. The HRD professional must re-enforce the effects of repeated exposure to traumatic events not only to the crisis worker but also to the organization itself through education. Education brings about better understanding, which results in alternative solutions to problems.

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The Transfer of Technology of Highly Skilled Foreign Workers for Thai Workers in Thailand

Boon-Anan Phinaitrup
National Institute Development Administration

Few studies have examined technology transfer among Thai skilled-workers. Some studies had reported that Thai people have relatively low technological abilities and skills. This paper reports on research utilzing quantitative and qualitative methods including interviews, observations, and surveys. The study described demonstrates the manner in which information and education are transferred between Thai employees and foreign workers.

Keywords: Transfer of Technology, Technology-Based Training, Thailand

Since the industries in Thailand are growing, the need to face the transfer of the technology and the capabilities to sustain is more. Thailand likes to approach industrialization with open-economy and promote the export goods. In this connection, many researchers have recognized the importance of the transfer of technology. Chantramonklasi (1994) had stated that the transfer of technology could assist the country achieve economic and provide convenient life. The government has also strongly promoted the foreign investment in the industry. For instance, the government has provided some training program, industrial promotion, reduce tax, establish the government unit such as Board of Investment (BOI) to look after the foreign investment, and promote exports. In addition, the government has encouraged some high technology small business, which need the most modern technology in order to complete effectively manufacturing or providing service. These situations mean that the investment policy of the government is increasingly concerned with the entry of domestic firms into industrial market. The country needs to have the investment policy to innovate Thai industries in the world competition and encourage more transferred technology.

The investment policy is very essential to convince foreigners to invest in Thailand. Since the investment policy of the Thai government allows foreign labors to work here, it has created some concerns. For example, there are more and more foreign workers brought in and caused Thai workers have less opportunity to get a job. The second concern is that the transfer of technology has not been accrued including the limited transfer of technology for local staff. The scarcity of skilled local labor and the restriction found in technology transfer agreements, which were imposed by technology suppliers is another concern.

Unfortunately however, few studies have looked specifically on how technology has been transferred for Thai skilled-workers. Some studies had reported that Thai people had been trained with the poor communication of technology information. Within the immed iate locality, the manufacturer may be aware of the technology requirements for established products and it is still difficult to obtain or develop new product design. In addition, some studies have shown that even where information on technology is avail able, lack of relevant skills with low level of education make difficult to achieve with unfamiliar or new technology. Infrastructure development needs to be a step ahead of the industrial development. It should be a forerunner before technology transfer.

The project purposes thus rest on how technology has been transferred in the manufactures. The project will apply quantitative approach and documentation approach including interview, observation, and survey. Moreover, data collected for the project will be analyzed and provided the broader pictures in term how one relates to transfer the technology and how to develop Thai workers.

Objectives

To study how technology has been transferred from foreign workers to Thai workers.

Literature Review

Thailand's economic growth since the late 1980s has been increased. Then, it makes technology become more important element for the national development. The current industrial policies in Thailand are designed to promote manufactured exports, labor-intensive industries and agriculture-based industries. The BOI is responsible for these activities. The organization is empowered to offer incentives, guarantees, and measures to protect industries against competition, and special exemptions from various laws. Then, many manufactures have imported the technology from abroad in order to assist them in the production and management. For instance, there are many manufactures in Thailand which are Thai-Japanese joint-ventures such as Toyota

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(Thailand)Co.Ltd., Nissan (Thailand) Co. Ltd, and Isuzu Motor Co. (Thailand) Ltd. Large and medium enterprises the machinery industry are also the form of joint-ventures, Thai investors holding about 50 percent of the total investment or less. In the electronic and electrical appliances industry, these are now about twenty large companies producing television sets, radio, refrigerators, integrated circuits, parts of computers such as Korat Denki Company, Minebear Company, Magnecomp Group Corporation. Many machines and equipments have imported from abroad (Cooper, 1994). It shows that the industrial development has been a strong reliance on imported technology.

In Thailand, the modern of science and technology has involved the promotion of direct foreign investment and the encouragement of applied research activities by local university. Foreign direct investment is seen by policy-makers as a way by which technology can be brought into the country, while the local research institute and universities provide the skilled human resource base to absorb the new information. The general perception, however, is that the strategy of building capacities in local institutions has not met with much success, in part because of the absence of effective linkages between the public and private sectors, as well as the lack of explicit measures and schemes to promote technological literacy.

These situations have created some concerns about the transfer of technology included the limited transfer of technology to local staff, the restrictions found in technology transfer agreements which were imposed by technology suppliers, the stated and hidden costs of technology agreement, the inappropriateness of the technology introduced, and the scarcity of skilled local labor. For instance, the Thai-Japan joint ventures have failed to transfer the know-how technology to Thai local partners. (Chantramonklasri, 1994)

Other concern is that the report traces the vicious circle within which many local companies are caught. It begins with a market for technology in which a small number of suppliers face a large number of buyers, with whom costs, terms and conditions are determined individually on the basis of crude bargaining power rather than competition. Moreover, the buyers are usually uninformed and lack the technical and legal expertise to evaluate alternative sources of technology and to negotiate effectively with suppliers. As a result, contracts are concluded to the advantage of the supplier and the buyers accept restrictions, which have the effect of increasing their dependence on the technology suppliers.

Although the transfer of technology is usually identified with the inflow of foreign capital, there have been questions raised about the prices paid for technology. The disadvantaged position of the buyer and his ignorance about the costs of alternative sources has resulted in unreasonably high profits for the owners of technology (Cooper, 1994). The government study reports that the evaluation of an offer to supply technology grows in complexity when the technology is offered in packaged form, with technical assistance and management provided (Khanthachai, 1987). The offer may contain many hidden costs. In addition, some reports provide information to support the contention that the outflows of funds (foreign remittances and expenses for import receipts) have exceeded fund inflows (foreign capital infusions and export receipts) among Thai joint ventures that have been paying copyright fees and royalties (Ng, 1986).

The technologies that foreign firms have introduced are generally inappropriate or excessively capital-intensive, given the labor surplus conditions in these countries as mentioned earlier. Moreover, these technologies are seldom adapted to make better use of local factor endowments. Some foreign companies had introduced second-hand equipment and passes it off as "labor-intensive, appropriate technology" (Chantramonklasri, 1994). These are usually machines that had become less efficient and had to be replaced in the originating country. The unfortunate impact on the host country or on the technology buyer is usually high maintenance costs, which offset the benefits from increased employment, and cheaper equipment costs.

The shortage of skilled labor is regarded as the another major problem to the effective transfer and absorption of technology. The various skills training programs are unable to cope with the needs of the extremely large labor pool and the requirement of industrial firms (McLeod, 1988). Moreover, the educational system has thus far failed to keep up with the demands for more science-based technically grounded and relevant educational programs. The potential for technological absorption and control is related to the availability of qualified and experienced technical personnel. Although such individuals were to be found in most Thai research institutions, the report showed that such institutions have been unable to adequately supply the requirements of private industry (Khantthachai, 1987).

The limited utilization of R&D capability is isolated and disconnected in the real world. The researchers carry out technology activity in an improper manner. Eventhough there is an attempt to commerce R&D programs and it is often unable to have an impact on the industry. A well-known argument often used to explain this ineffectiveness is that industrial firms have a tendency to utilize proven technologies from foreign sources, thus limiting the demand for local scientific and technological capabilities(Ng, 1986). This argument remains highly questionable because it presumes that those"centers of excellence" have available the kinds of products which are relevant to the needs of their potential clients. As noted by an empirical study, "industrial firms tend to doubt the ability and effectiveness of universities and public technical institutes to solve practical industrial problems" (TDRI, 1992a, p. 85).

According to some statistics in the country report, advanced countries have a higher level of national investment in R&D. For example, Japan spent about 3 percent of its GNP and newly-industrialized countries like Korea, Taiwan and Singapore spent about 1 to 2 percent of their GNP in R&D (TDRI, 1992). The R&D investment in Thailand in recent years was less than 0.2 percent of GNP. It shows that Thailand is less interested in R&D investment which causes to develop the country slowly.

Other problem is that many firms can draw sources of technology from foreign sources and that lead the firms to feel that there is no need to invest in R&D. Since the firms receive efficient technology, they then assume that everything will be fine. They would take a passive action until the new production system has arrived. Therefore, they can simply engage limited technological learning such as only at the minimum level needed to operate the systems. Indeed, it is less awareness of the industrial firms to develop the in-house technology.

Many reasons mentioned above have caused Thailand to hardly ready for the transfer of technology and have the limitation of competitiveness. Moreover, there are many new market economy with lower wages and more sufficient sources. Many developed countries have become more modern and research new production and make many new products which make Thailand will become less competitive and could become at risk in the future. It is thus highly possible that without substantial efforts to develop better capability in science and technology to support industrial development. Thailand may face a major economic and social crisis in the near future.

Furthermore, transfer capabilities and motivation of the enterprise supplying the industrial technology each have an important bearing upon the effectiveness and efficiency of technology transfers. The competence of the transfer agents, including their ability to design an easily transferable technology package, is an important factor. The supplier enterprise and its transfer package report a combination of documentation, training and technical assistance. Motivation of the technology supplier depends in large part on the transfer mode and the potential return the supplier hopes to realize an effective and efficient transplant.

Many problems mentioned above show the technology gap. It represents the differences in the levels of technical competence of the supplier and the absorptive capabilities of the recipient enterprise. The extent of this gap and the time and resources will take to effectively implant a technology package that will depend on enterprise differences in terms of likeness, scale, and sophistical of product line, quality of metallurgy, quality control standards, and relative levels of general, "system-specific", "firm-specific" technical knowledge.

Conceptual Framework

The transfer of technology gap between developing and developed countries is happening for long time. It causes the technology gap wider and wider. There are a few countries in Asia, which have crossed the gap and developed a national technology of their own. The essential question is why. Why has so little worthwhile know-how flowed to developing countries? It is the believe that there is no one answer to the question. There are some studies to learn the success and failures of some factories. Some failure stories in the ransfer of technology are because of poor negotiating technique and poor contract drafting, poor English language, and poor skilled-labor. Some success stories occurred because the negotiation knew what they wanted, knew how to bargain for it, and knows how to draft the necessary contract.

This paper is to study how technology has been transferred from foreign labors to Thai labors under the concept of the transfer of technology that defines as the act of sharing know-how by such devices as constancy, joint ventures, gifts, licenses, franchises, and patents. In this case, it focuses on the transfer of technology in the manufactures because the industry in Thailand is more promoted and more buying - selling technology in this area than other area.

The project took into account the aboved definition as an assist to determine of how-to transfer the technology. The technology can be transferred and adapted by demonstrations, dissemination, training, constancy and management assistance. Some of the questions for investigation are : to find out which technology do you think that Thai workers' skills are not as good as they should, Does the manufacture provide training to Thai workers? How does the manufacture develop Thai workers after they have the transfer of technology? What are the advantage and disadvantage for hiring foreign workers? How can the government assist you with the transfer of technology? This, in turn, will assist Thai manufactures to know their problems, and to learn about the transfer of technology .

Research Methodology

1. Research Limitation
   The research is to study a model and technique how to transfer technology to Thai workers.
2. Sampling Population
   Sampling population focused into four groups:

1. Foreign workers are from Japan, China, India, Taiwan Australia, German, South Korea, France, and America.
2. Thai workers that work as labor force in the manufactures.
3. Senior administrators in the institutions.
4. Entrepreneur or human resource managers.

Research Questions/Propositions

How can the transfer of technology from foreign workers to Thai workers?

Random Sampling Technique

The size of sample is 350. It consists of:

1. Foreign workers	150 persons
2. Thai workers	100 persons
3. Entrepreneur or HR manager	50 persons
4. Institutions	50 persons

Data Collection

Data collection is to:

1. Collect information from the secondary source by collect data through statistics, type of business, type of technology, labor workforce, labor demand.
2. Collect information from the primary source by interview with Thai and foreign workers, entrepreneur, or human resource managers.

Words of Definition

The transfer of technology defines as a knowledge transfer from supplier (usually a developed country) to the receiver (a developing country).

Foreign workers define as foreigners who are granted the work permit to work in Thailand by the BOI.

Thai workers define as Thai workers who work in the manufactures.

Human resource manager defines as the manager who is responsible for personnel management .

Institution defines as Thai higher education institution.

Entreprenures define as one who organizes a business/manufacture.

Result and Findings

The questionnaires were provided for four groups. They were 50 HR managers/entrepreneur, 100 Thai labors, 150 foreign labors and 50 institution administrators. The research took about one and a half months in the field. The study included twenty four manufactures from four regions of Thailand and ten institutions. The section will discuss some important issues on how foreign workers transfer the technology to Thai workers.

The first set of questionnaire was distributed to the HR manager/entrepreneur. The result displays that every factory has hired foreign workers with the working permit to work in Thailand. Most of them came from Japan, Korea, China, Taiwan, Philippines, Malaysia, Singapore, Pakistan, and India. A few of them came from the United States, Canada, the Britain, France, Italian, and Australia. These people hold the positions of senior and middle manager and technician. Examples of positions are mechanical manager, marketing manager, managing director, quality audit manager, shift supervisor, maintenance supervisor, R&D manager, production manager, tooling design specialist, process development manager, and information system manager. Many responses have stated that some positions have transferred the technology in order to increase the experience and specialist for Thai workers to work efficiently. They also mention that there is an organizational policy reinforced the transfer of technology more than 76% in the manufactures. The reasons are that Thai workers cost cheaper and have ability to do the job. In order to transfer the technology in the manufactures, the result displays the four type of the transfer of technology in Table 1 and the method of the transfer of technology in Table 2 as shown below.

Table 1. *Type of the Transfer of Technology in the Manufactures*

Type of the Transfer of Technology	Percent
Mechanism	80.9%
Production	70.2%
Management	51.1%
Marketing	31.9%

Table 2. *Method of Transfer of Technology in the Manufactures*

Method of the Transfer of technology	Percent
On the job training	89.4%
In-house training	76.6%
Training abroad	61.7%
Training in Thailand	51.1%

Since the transfer of technology has occurred, the responses (76.6%) are willing to replace foreign workers in the middle management such positions as plant manager, control manager, mechanical technician, safety and environment manager, production technician. The factory also has the plan to continuous the development of Thai labors in order to keep up the new technology. They will provide coaching, in-house training, simulator, require the self-evaluation, and do the portfolio.

The responses also state the advantage and disadvantage for hiring foreign workers as shown below;

Advantage	Disadvantage
- transfer the technology for Thais	- highly cost
- exchange of culture	- conflict culture
- easily to communicate with mother company	- language barrier
- highly experience and specialist	- hardly transfer the technology
- provide new technology and knowledge	- difficult to apply for Thai visa
- provide suggestion and recommendation	- look down Thai people

On the government side, the responses indicate the need of some assistance from the Thai government as follows:

- encourage Thai people to learn foreign language
- train Thai people for foreign culture
- improve the school curriculum including teaching and learning
- send students for training
- reinforce the law for foreign labors to do something for Thai society
- coordinate between the government and industry
- provide the training package
- establish the center of consultation about the expert in the technology for Thailand and abroad

The second set of questionnaires was distributed to foreign workers. The response from the survey show that the average age of the foreign workers is 41 years old, the average years of experience are 14 years and earn the average salary is 80,080 baht ($1,777 per month). The responses are male (98%) and female (2%). Their education in details is shown in Table 3

Table 3. *Level of Education of Foreign Workers in Thailand*

Level of Education	Percent
Lower secondary school	1%
Upper secondary school	20%
2 years college	14%
Bachelor Degree	49%
No answer	17%

The foreign workers are Asia (79.9%), European (11.4%), and America (6.7%). Most Asian came from Japan and followed by Taiwan, China, Korea, Malaysia, Singapore, and India. Their positions are president, vice president, manager, assistance manager, and technician. Their main jobs include quality control, quality audit, organizational management, safety, production design, contact customers, supervise workers, marketing product, investment planning, coordinate, and maintenance. These people came to Thailand because their mother companies sent them to help Thai team members improve their skill, learning, and development. This has created an opportunity to train and transfer the technology to Thai workers. However, there are some difficulty for the transfer of technology to Thai workers in several reasons. For example, language barrier,

communication gap, and conflict culture. Others include Thai staff will quit the job after training in order to get a better job, some Thai labors don't pay attention to what had been taught, and both foreign and Thai workers sometimes misunderstanding.

The third set of questionnaire was distributed to Thai workers. The survey shows that the average age of Thai workers is 31 years old, the average years of experience are 5 years, and earn average salary about 20,262 baht ($406 per month). The responses are male (83%) and female (17%). Their education in detail is shown in Table 4.

Table 4. *Level of Education of Thai Workers in the Manufactures*

Level of Education	Percent
Lower secondary school	16%
Upper secondary school	22%
2 years college	5%
Bachelor degree	49%
Master degree	6%
No answer	3%

The responses are holding the positions in the middle manager, for instance, head of the technician, and director of production The responses show that these positions can be replaced by Thai people for several reasons. Thai people have more experience, work hard, responsibility, willing to do the job, like challenge job, and always develop themselves. In addition, many responses stated that Thai workers have equal opportunity to progress their job like foreign workers, they work and coordinate with foreign staff and learn the technique from them. The question asked the responses whether they attended the training courses. They all attended the training courses in a variety of areas. The training courses are the industrial orientation, professional manager, internal audit, foreign language, manufacturing, ISO 9000, ISO 14000, safety and save energy, and time management both in Thailand and abroad. The technique for the transfer of technology is to work closely with foreign labors, practice by yourself, testing, coordinate in the project, train on the actual job, and send them for training abroad and other professional conference.

The fourth set of questionnaire was distributed to the institutional administrators. The responses are the public institutions (95%). Their curriculum are in the fields of engineering, technology food, industrial technology, ceramic, business-computer, business-economic, science food, accounting, marketing, hotel, and tourism.

The institution' s policy to produce the graduates for the market labor is to produce graduates who can think, work, be responsible, and communicate including foreign language. The question also asked whether the institutions knew about the need for the number of Thai workers in the manufactures. Many of them don't know (52%) while some institutions have known (48%). The question asked further how they know about the need of factories. The result shows that the institutions knew about the need from province labor council (5.45), announcement of the factories (13.5%), BOI (5.4%), and no answer (75.7%).

In order to help the manufactures find the qualified labors, all institutions have the counseling unit under the different name such as the counseling department, counseling unit, career and development section, career information section where they work closely with students and the manufactures. Their jobs are to provide counseling, finding job for students, coordinate with the Ministry of Education, service on career information.

The responses also display that students in the institutions have an opportunity to learn and practice their skills in the manufactures in order to increase the experience, sometimes attend training short course for 2 months or 23 years in the manufactures. The techniques to train students is implemented in Thailand are shown in Table 5.

Table 5. *Techniques to Train Students in the Institutions*

Techniques to Train Students	Percent
On the job training	76%
Student-teacher learn from foreign workers	49%
Invite foreign workers to teach in school	35%
Learning through a documentation	15%

Some problems in the Thai institutions regarding the production of graduates for market labor are:

- unclear the national policy for the higher educational level
- a lack of personnel and equipments - less experience teachers to teach
- a lack of budget - a lack of private coordination
- a lack of language and culture - old curriculum including teaching and learning
- less activities for students to participate in the field

The final question was to ask whether the government can help to improve the transfer of technology for Thai workers:

- determine how to transfer the technology
- provide training and more education
- coaching and mentoring
- determine the policy on the transfer of technology
- coordinate with the foreign investment
- encourage the exchange of technology among the industries
- set up the transfer of technology center
- open new curriculum with the emphasis on the foreign language
- encourage more foreign investor to invest in Thailand
- conduct more seminars, workshop, conferences, and other activities that involve the transfer of technology among labors
- encourage more development of technology
- provide the scholarship for further education
- lecture and participation
- improve quality of education
- focusing on specialist
- provide enough budget

Conclusion and Recommendation

In this paper, we analyze how technology has been transferred from foreign workers to Thai workers. The finding shows that the majority of foreign and Thai workers are male and holding the position of middle and senior managers in the manufactures. Foreign workers have average experience about 14 years while Thai workers have average experience about 5 years. It could be that the average age of foreign workers are much higher upto 41 years old with more skills while the Thai workers are 31 years old with less skills. It results for the foreign workers to be able to distribute their new and advanced knowledge for Thai workers who have less experience. The foreign workers train Thai workers through the on-the-job-training as the primary vehicle for building the capacity to work efficiency.

The method of the transfer of technology range from on the job training, in-house training, training abroad, and training in Thailand in the areas of mechanism, production, management, and marketing. It shows that there are four main methods for the transfer of technology that most manufactures in Thailand implemented and work well. The manufactures still feel that it is necessary to hire the foreign workers because they would like to hire their own people to do their job. They feel that their people can do better job and trust them more. In addition, there is the recognition that the Thai government and the manufactures have play major roles to facilitate and support the process of technology transfer. The government is encouraged to support the process through the provision of required incentives, educational infrastructure and support institutions. It must be a strong collaboration between the manufactures and the government for the transfer of technology.

The educational curriculum has offered the courses that are not quite modern and not geared to keep up with the changes in technology. The responses from the manufactures had stated that the graduates can't do the work. However, the institutions have tried to help by providing practicum and have students do the actual work while in school. The equipments in schools are not new for students to practice. It also a lack of qualified teachers resulted in the incomplete or improper transfer of technology. It is also a high turnover among skilled workers resulted in the lack of continuity in technology transfer to the local manufactures . Consequently, the ability of Thai workers to absorb and adapt technology is weak.

New Knowledge to HRD

This research can contribute to the new knowledge in HRD that there is a growing awareness between the manufactures and the transfer of skills available to increase the productivity and growth in industrial production. It displays the important for Thai workers to be better educational and training opportunity in order to do a better job and compete in the world manufactures. Therefore, the education and training has played the essential role to develop the workers' skills. In addition, the government must be a strong support for the process of technology transfer.

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Revisiting the New Deal: A Longitudinal Case Study

Judy Pate
Graeme Martin
Jim McGoldrick
University of Abertay Dundee

This paper examines the new psychological contract in the light of changing economic circumstances by examining evidence from a longitudinal case study of the links between job security and HRD. The case study draws on data from surveys and interviews. Our conclusions support the hypotheses that it is employee demand, driven by a fear of job insecurity, which underlies much of the recent upsurge of interest in HRD rather than the more optimistic employability thesis.

Key Words: New Deal, Psychological Contract, Case Study

Throughout the 1990s there was a plethora of mainly US literature that made much of the impact of changing market conditions and changing psychological contracts on careers and career development. At root, the general tone of this writing was optimistic in nature. Much political capital was made of the increased expenditure and efforts made by employers on HRD in the US (Marquardt, 2000) and in the UK (Milward, Bryson & Forth, 2000). At the same time the new career literature focused on the positive benefits of the breakdown of the old psychological contract or old deal. This resulted in employees no longer being offered job security but instead being offered employability (opportunities for continuous learning and enhanced future marketability) in return for their willingness to commit themselves to work flexibly for their present employers. This new psychological contract or new deal and new career literature became associated with concepts such as "boundaryless" (Arthur, 1994) and "protean" or variable careers (Hall & Moss, 1998), both of which connoted individuals largely seeking psychological growth moving along career paths that were discontinuous and often outside the boundaries of single firms.

In much of the writing on new patterns of employment, the benefits to individuals are stressed in the form of increased opportunities for learning and for balancing work and life style issues. However, the evidence and discussion largely focused on the new economy and on employees of new organizational forms such as networked and cellular structures, with much of the data drawn from employees in Silicon Valley and others parts of the golden triangle in the US. Because of this rather restricted empirical base, this literature was criticised for its apocalyptic tone and lack of transferability to other, more traditional parts of the US economy, for example, the considerable US public sector and the burgeoning, largely low-skilled, service economy (Thurow, 1999). Such criticisms were even more widely voiced in countries that had not experienced the levels of continuous growth which characterised the US economy for nearly all of the 1990s, such as most of those in Europe, including the UK, France and Germany (Eire was a notable but limited exception). In essence, it was argued that the new deal and new careers were limited to small(ish) pockets of the US economy and high growth regions in Europe with the benefits only likely to be felt during periods of sustained economic growth.

This is not to say that academics in Europe failed to observe changes in employment relationships, careers and in the relative importance that individuals were placing on their own career development. Rather it shows that they were less likely to see these changes in wholly positive terms, believing that these concepts were heavily tied to the features of particular labour market conditions. Thus, given the US/new economy focus of the literature, it comes as no surprise as Sullivan (1999) has pointed out, that there were few studies that examined the negative changes in employment relationships associated with new psychological contracts. She noted three such US studies (Tsui, Pearce, Porter and Tripoli, 1997) that highlighted the negative outcomes of changed. In contrast, there were a much greater number of studies in the UK that gave the new career literature a more critical treatment (see, for example, Kessler and Undy, 1996; Thomson and Dunkerly, 1999).

Theoretical Framework

The concept of the psychological contract has also been embraced by the academic community from a number of disciplines including psychology (Mansour-Cole and Scott, 1998; Deluga, 1994), sociology (Fincham and Rhodes, 1988; Delbridge and Lowe, 1997) and human resource management (Sims, 1994; Rousseau and Greller, 1994). Academics have firstly aimed to establish the prevalence of changes in the psychological contract

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(Herriot et al 1997; Guest and Conway, 1998) and secondly offered models and theories to advance understanding of the factors that shape the psychological contract (Guest et al, 1996; Rousseau, 1995).

Our study is rooted in this framework and explores the relationship between career development, the demand for training and job security. This study examines what we referred to as the optimistic and pessimistic versions of the new deal and its relationship to the demand for training. The optimistic version of the increased interest in HRD by organizations and employees was linked to the *employability thesis*, which can be stated in the following terms. The new, transactional psychological contract, established by employers to deal with fluctuating demand conditions associated with global competition, has provided employees with a flexible process of training and (essentially) self-development to ensure that they become more employable internally if circumstances permit but externally if the firm experiences a downturn. Indeed, the Silicon Valley version is premised on the assumption that constant change of employees among employers in that region is one of the reasons underlying its success and that boundarylessness is a positive virtue. Consequently, it is this new and enlightened employer position that has led to an increasing interest by employees in training and development to cope with the new rules of the game. It is also argued that such boundarylessness suits the changing aspirations of new economy employees who value change and learning more than their old economy colleagues do. Such transitions have come to be associated with *cosmopolitan* personalities who were more likely to change jobs and employers and view HRD in terms of psychological growth (Larwood, Wright, Desrochers and Dahir, 1998)

The more pessimistic position, which we label the *employee-driven demand thesis*, makes much of how employees adjust to the reality of downsizing and to perceptions of job insecurity and feelings of powerlessness by engaging in a transactional form of employment relationship. Through this they seek to acquire more skills to make themselves more employable internally and by increasing their expectations of what they are owed by their employers from training and development. Such reactions to HRD are associated with *local* personalities (Larwood, Wright, Desrochers and Dahir, 1998) who are more likely to engage in HRD for political reasons and have a narrower interest in HRD. Consequently, from this perspective it is employee politically driven demand rather than employer initiatives or psychological growth that have been the primary influence on training and development moving up the agenda for both parties.

Our main conclusion, drawn from our single case study of mainly lower level employees working in a traditional industry and with relatively limited opportunities to move jobs, provided much more support for the pessimistic version of why HRD had moved up the agenda. This finding contradicts employer claims that they were behind the increased emphasis on training and development because of uncertain market conditions and their desire to make employees more employable.

Our study has the benefit of a degree of longitudinality in being able to relate changes in employee aspirations, expectations and satisfaction to changes in context, an advantage rarely enjoyed by the cross-sectional survey research which have underpinned much of the US based career literature. And it is precisely the importance of relating changing career orientations, patterns of HRD and context that are likely to loom large in the coming years, given the recessionary pressures in the world economy. It is interesting to note how the literature on careers and boundarylessness changed as the US economy began to decline during 2000. With the events following September, 11th and the possibility of much more restricted growth in the world economy, studies which focus on changing contexts and HRD are more likely to be of use to academics and practitioners than those which were built on "years of feast". For this reason, we have revisited our original study and use new data to examine how employees' demand and satisfaction with training and development is influenced by the local economic and organizational context in which they find themselves and to further test the employee-driven demand thesis.

Research Questions and Propositions

To test our two propositions, we have attempted to answer the following questions:
First, to what extent had training and development become more important to employees over the four years of research? Second, was there a mismatch between employees' expectations and desires on training and development and what the company provided? In other words had the employer violated psychological contracts in this area (Rousseau, 1995)? Third, if any violation was experienced, what impact did this have on employee perceptions or behaviour? Finally, how did attitudes to HRD change over time and context?

Methodology

Many of the psychological contract studies have drawn conclusions from national surveys (see Guest and Conway, 1997; Kessler and Undy, 1996) or from questioning postgraduate students (for example see Rousseau

and Parks, 1993). As a result these studies have ignored the importance of context or have used a small and unrepresentative sample. The strength of this research lies in the narrative accounts of 'real' experiences within a case study organisation and highlights the influence of contextual issues in the analysis of psychological contracts (Yin, 1994; Eisenhardt, 1989).

The research is based on a single case study, a medium-sized industrial textile company employing approximately 600 people in 2000. The company was based in a small rural town in Scotland. The company has four separate sites in the locality specialising in various aspects of the product range (Figure 1, below, outlines the characteristics of two contrasting sites). Four lines of commodities were produced in the year 2000: industrial yarns, floor-coverings, industrial textiles and geo-textiles.

Between 1986 and 1999 the company was a wholly-owned subsidiary of a multinational holding organisation producing polypropylene products. The period 1996 – 2000 was characterised by ongoing change due to pressures from the shareholders and the market. As a result the company reduced the workforce from 660 in 1996 to 600 in 1999 with further redundancies expected in 2001. This action had a predictable "knock on" effect on employee perceptions of job security. At the same time the company's directors had attempted to create a new organisational culture based on customer service, flexibility and good human resource management. These changes were accompanied by the directors "talking up" training and development and in increasing effort and expenditure in specific areas of training such as continuous improvement, healthcare and team working.

In November 1996 employees were told of new plans to reorganise its productions facilities by locating two of the older sites close by the two newer sites. This relocation of facilities would create one large "greenfield" site that would allow the company to rationalise its organisational structure and to "downsize" its employment levels. In this connection, although training had been primarily focused on business needs, the outgoing human resources director claimed that such training had also been undertaken with a view to helping secure employment for those who would need to be "let go".

The period 1997 - 1999 witnessed a difficult time for the company due to the strength of the pound and operating in a mature global market. This was coupled to problems with quality and the loss of major customers. The company responded to this problem in two ways, development activities and employee training. In 1998 the overall holding organisation put the company on the market and it was bought by a family-owned Greek company. The uncertainty associated with the sale of the company had implications for perceptions of job security and morale.

Data Collection

The research occurred during the period 1996-2000, though we have drawn on a consultancy survey conducted in 1994. The research design has adopted a mixed methodology approach (Cresswell, 1994). The purpose of the quantitative aspect of the research was to use repeated cross-sectional data from employee surveys (conducted in 1994, 1996 and in 2000) to provide a longitudinal test of our key research questions. A consultancy firm undertook the first survey in 1994 and the following surveys, undertaken by the researchers, retained the key questions from the first survey for comparison. The 1996 survey was distributed to the whole workforce with an 80% response rate (from a total population of approximately 660). In the year 2000, due to pressures of work, the company was not prepared to allow all members of the organisation to complete the survey in worktime as they had in 1996. As a result a stratified sample (structured to reflect the proportion within each site) of employees was identified, the response rate was again high at 52%.

In the second phase of the research focus groups and in-depth individual. The organisation was made up of five distinct sites and a stratified random sample was selected to gain a representative group from each site. During 1997 one hundred and five interviews were conducted in total. In 1999 the company agreed to follow up interviews with employees but felt unable to allow us to interview the same 105 employees as in 1997. Consequently 50 employees were re-interviewed; involving 10 randomly selected from each site, due to the confines of this paper the findings of only 2 sites were reported.

The purpose of the qualitative dimension of the study was to determine whether, how and why different groups of employees come to hold varied perspectives on training and development during the six-year period between the surveys and to ground these perceptions in a specific context (Basznger and Dodier, 1997). Specifically we were interested in how an explicit and implicit employer position to renegotiate the psychological contract by offering more training for greater employee flexibility in a context of declining security in employment had influenced employee perceptions of the contract. This attempted renegotiation of the contract was revealed to us through interviews with some of the key directors and human resource staff, who recognised that the lifetime employment contract for some employees was not possible under current and forecast market circumstances.

Results and findings

Ranking Of Employee Expectations on Training and Development

In all three surveys employees were asked about how important certain aspects of the employment contract were to. In absolute terms the data appeared to show that all aspects of what employees valued had become more important during 1994-6 and 1996-2000.

Table 1. *The Ranking of employee values 1994-96*

EMPLOYEES VALUES	1994 MEAN	RANK	1996 MEAN	RANK	TWO SAMPLE T-TEST(D.F>150)	P VALUE
Job security	1.50	1	1.28	1	-9.38	P<0.01
Being well paid	1.70	2=	1.34	2	-14.72	p<0.01
Good relationships with colleagues	1.70	2=	1.41	3=	-2.03	p<0.05
Enjoy your job	1.80	4=	1.60	7	-6.68	p<0.01
Know what is going on	1.80	4=	1.51	6	-11.13	p<0.01
Good working conditions	1.90	6	1.47	5	-17.68	p<0.01
Receiving suitable training	2.00	7=	1.41	3=	-23.95	p<0.01
Knowing what 'customers' think	2.00	7=	1.51	9	-3.32	p<0.01
Working for a caring company	2.00	7=	1.67	8	-12.2	p<0.01

Table 2. *The Ranking of employee values 1996-2000*
The table below illustrates issues which employee's value and how they had changed between 1996-2000. The Likert scale was 1 =strongly agree, 2=agree, 3=neutral, 4= disagree and 5= strongly disagree and n = 105.

EMPLOYEES VALUES	1996 MEAN	RANK	2000 MEAN	RANK	TWO SAMPLE T-TEST (D.F>150)	P VALUE
Job security	1.28	1	1.33	1	0.70	P>0.05
Being well paid	1.34	2	1.46	4	1.29	p>0.05
Good relationships with colleagues	1.41	3=	1.55	6	-1.47	P>0.05
Enjoy your job	1.61	7	1.70	8	1.29	p>0.05
Know what is going on	1.51	6	1.50	5	-0.17	p>0.05
Good working conditions	1.47	5	1.45	3	-0.22	p>0.05
Receiving suitable training	1.41	3=	1.44	2	0.32	p>0.05
Knowing what 'customers' think	1.90	9	1.93	9	0.45	p>0.05
Working for a caring company	1.67	8	1.69	7	0.18	p>0.05

The important point to note about the data in tables one and two is the relative ranking of training and development, which, according to the data, has consistently moved upwards in employees' preference schedules. This greater priority accorded by employees to HRD was further supported by the qualitative data as employees felt that training gave them 'more strings to their bow'. The organisation had also emphasised the importance of training and development but employees were sceptical of the employability rhetoric of the company. A typical comment was "they are not going to spend all that money so we can go somewhere else. They'll spend money so they can get more out of us!"

Violation of the Psychological Contract

Employees (in the 1996 and 2000 surveys only) rated different aspects of the company mission statement according to (a) how important they *personally* regarded them and (b) how they saw them being put into *practice* by the company. Table three and four show that in both 1996 and 2000 employees perceived the largest, statistically significant gaps between what they *valued* about the mission statement and what they saw the company putting into *practice* were: providing a fair system of financial and non-financial rewards; providing open communications, and providing opportunities for personal *development*.

Table 3. *The gap between the value employees place on dimensions of the company mission statement and how employees see the company putting these dimensions into practice, 1996*

Key Dimensions of the Mission Statement	VALUE TO INDIVIDUAL	COMPANY PRACTICE	2 sample T-test(d.f. > 150)	P Value
High levels of customer service	3.68	3.69	-0.25	p > 0.80
Conduct business with honesty	3.60	3.39	5.96	p<0.01
Maintain safe working environment	3.73	3.63	3.47	p<0.01
Give people more responsibility	3.45	3.14	7.82	p<0.01
Provide challenging work	3.17	2.85	8.80	p<0.01
Provide personal development	3.23	2.69	11.17	p<0.01
Provide fair reward system	3.50	2.65	14.87	p<0.01
Provide open communications	3.49	2.80	13.50	p<0.01
To be environmentally aware and socially responsible	3.30	3.23	4.74	p<0.01
Fair return to the shareholder	3.34	3.66	-8.87	p<0.01

(Scale: 1 important, 4 is not at all important).

Table 4. *The gap between the value employees place on dimensions of the company mission statement and how employees see the company putting these dimensions into practice, 2000*

Key Dimensions of the Mission Statement	VALUE TO INDIVIDUAL	COMPANY PRACTICE	Two sample T-test(d.f. > 150)	P value
High levels of customer service	1.20	1.27	-1.00	p > 0.05
Conduct business with honesty	1.27	1.56	-3.05	p<0.01
Maintain safe working environment	1.16	1.33	-2.53	p<0.01
Give people more responsibility	1.51	1.99	-4.61	p<0.01
Provide challenging work	1.87	2.43	-4.84	p<0.01
Provide personal development	1.75	2.53	-5.85	p<0.01
Provide fair reward system	1.63	2.63	-7.57	p<0.01
Provide open communications	1.49	2.45	-7.33	p<0.01
To be environmentally aware and socially responsible	1.53	1.86	-3.00	p<0.01
Fair return to the shareholder	1.59	1.47	1.22	p>0.05

(Scale: 1 is important, 4 is not at all important).

The gap between policy and practice was corroborated by the qualitative data. One employee summed up the feelings of many: "If someone says to me 'we'll give you training' then they should do it. But nothing happened! If it doesn't mean anything, there's no point saying it!"

Consequences of Employer Violation

The quantitative and qualitative data also showed that there were significant negative associations between: being given adequate skills to do their jobs and enjoying their jobs and being given plenty of opportunity for career development and enjoying their jobs

These findings were in line with Robinson and Rousseau's (1994) research on the association between employer violations of psychological contracts and the lower levels of job satisfaction of those employees who continued to work for their employers.

Variation amongst Sites Levels of Jobs

Although the data for the company has shown some general trends, employee expectations varied amongst sites during the period covered by the 1996 and 2000 survey. Two sites in particular referred to as *Site A* and *Site B* (see Figure 1) exhibited markedly different attitudes towards training and development. A comparison of these two sites showed that *Site A* agreed more strongly than *Site B* that it was important to receive suitable training (1996: two sample t-test t (224) = 2.58; p <0.05 and 2000: t (30)=2.54;p<0.05). The data also showed that workers at *Site felt* that there were fewer opportunities to acquire relevant skills. A typical comment was "I would take the opportunity if I was given the chance, but we haven't been given the chance!" It was also suggested that that there was less scope for career development than in *site B* as "there is no place to go" with a flat organisational structure.

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Our data showed that there was a significant difference between 'blue collar' and 'white collar' employees. White-collar employees expected to have a long term 'career' whereas blue-collar employees tended to accept the realities of their market position and limited prospects for promotion are expressing satisfied with a 'job'.

Figure 1. A Data Display Comparing Shop-floor Employees in the Two Sites based on the Interview Data.

	Context	Causes	Content	Consequences
Site A	New, stand-alone venture. Difficult market circumstances coupled with the revolving door sackings. Young(ish) male workforce. Fewer opportunities for advancement.	1. Increased insecurity increased the desire to be employable. 2. Career orientation of minority of shop floor workers but majority of white-collar staff 3. Restructuring of jobs and increased responsibilities	Perception that the contract on training had not been delivered. Lack of trust in management Perceptions of an unfair promotion system	Feelings of resentment in area of promotions. Acceptance of their position given lack of alternatives. Demand for more training
Site B	Old established weaving site. Older workforce with long service in company but also with previous experience of site closure	4. Heightened insecurity due to redundancies 5. Low discretion jobs but some limited restructuring and demands for some new skills. 6. Absence of career orientation amongst shop floor workers	Perception that the contract on training had not been delivered, even in the context of low discretion jobs.	Feelings of powerlessness but little resentment. Acceptance of their position given the lack of alternatives.

Our general conclusions from the data for the company as a whole were (a) that employees had come to value training and development significantly more highly throughout the period and (b) that they also saw training and development as one of the key areas of the psychological contract that had been most violated during the period covered by the surveys. Moreover, this violation seemed to be associated with lower levels of job satisfaction. However, employees' perceptions and expectations concerning training and development varied amongst sites. The qualitative data showed two sites, in particular, to hold markedly different attitudes towards training and development. These sites operated in quite distinctive product and labour markets and employed different types of people, which, we believe, have a major influence on how they responded to questions on HRD and career development.

The survey data appears to provide some support for the second hypothesis that the demand for training and development was primarily employee-driven and was associated with heightened expectations and perceived violation of the psychological contract in this area. These data also suggested the importance of key contexts in shaping variations in employees' perceptions. As we indicated, to explore these issues further we undertook focus groups in all sites and individual interviews with employees in the various sites. We expected that such data might not only provide a degree of triangulation for the research programme but also give a dialogical and contextual account(s) of the variety in employee perceptions found in the surveys (Keenoy, Oswick and Grant, 1997). For reasons of time and space we cannot discuss these data but only allude to them in the comments below.

Contribution to the Development of HRD

The purpose of this study was to explore two hypotheses concerning changes in the psychological contract and the so-called "new deal", with a view to revisiting this concept in the light of changed economic circumstances in the world in general.

Our storyline is that, despite the directors claiming that employability had been a key feature of their thinking and practice, few employees saw their employer as particularly enlightened; nor did they see *employability* as the main reason underlying the increased emphasis of the company or its employees on training and development. Instead all of our data provide support for the *employee-driven demand thesis*, which implicates political behaviour by employees in placing increased value on training and development. Such political behaviour is associated with employees trying to adjust to a climate of increasing job insecurity *by making themselves more employable inside the company*. The increased expectations of training and development that accompany this enhanced valuation of training and development are clearly linked to employees' perceptions that the company had failed to deliver on the promises made in this area. In this case, although the company may have "talked up" training and development (in the mission statement and policy documents) and in actually delivering training in areas such as safety, they did little to honour their "side of the bargain" by giving employees the kind of skills that they regarded as necessary to secure their future. This was seen to be a violation of the contract even in circumstances where employees had low-discretion jobs and low expectations of training.

Though we can only allude to the interview data, the stories told by employees, in particular, show that training and development have become a more valued part of the psychological contract of employees. They also show that employees view this as one of the key aspects of the contract where employer rhetoric did not match reality. Moreover, as Robinson and Rousseau (1994) found, there is also evidence to suggest that the more employees perceive the company to violate their obligations with regard to providing skills and career development, the less satisfied they are with their jobs.

Leaving aside the question of variation among sites for the moment, the data from the survey, the focus groups accounts and the text of the interviews in both sites generally corroborated each other on the increasing expectations of employees for more relevant training and development and the failure of the company to deliver in these aspects of employment. These perceptions are particularly evident in *Site A*, which employ a younger workforce, many of whom - at the time of the survey - felt more worried about job security than in *Site B*. Inevitably, such feelings of insecurity in *Site A* are linked to their lack of power to influence their employment prospects, given the location of the company and the lack of suitable alternative employment in the area. Thus, worries about job security, perceptions of contract violation have led employees to a more *transactional* or exchange-based view of their psychological contracts rather than the old-style *relational* contracts, which involved a guarantee of job security in return for commitment.

However, these data and accounts also show that production workers and white-collar workers see things differently. The horizons of production workers, particularly in *Site B*, tend to be *local* (Gouldner, 1957), consistent with the lack of discretion in their work, their expectations of alternative employment and their lack of ambition. Thus, their expectations of training and their views on careers were shaped by their desire to remain employable'. Consistent with the work of Larwood, Wright, Desrochers and Dahir (1998) these employees are more likely to engage in HRD for political reasons and have a narrower interest in HRD. On the other hand, white collar workers, whilst influenced by the lack of alternatives, have broader *cosmopolitan* orientations (Gouldner, 1957; Larwood, Wright, Desrochers and Dahir, 1998) and see training and development as a means of making themselves more marketable outside of the company and as part of a natural process of life-long learning.

In summary, within this one company there were sufficient similarities between sites and groups of workers to support the employee-driven demand thesis concerning the psychological contract and HRD. However, it is also true that there are important differences between sites and between categories of employees. These differences have allowed us explore the importance of contextual factors such as historical, organisational and product market influences and to examine the importance of the "causes" of the psychological contract such as site culture, human resource practices , alternative opportunities for work and some key demographic variables.

For practitioners, the implications of these findings are three-fold. First, when employers' rhetoric on human resource development is not matched by practice it can sometimes rebound on them to produce paradoxical and counter-intentional effects (Dahler-Larsen, 1997). Thus, for example, Maitland (1994; 1996) argues that employees have come to learn the lessons of market economics only too well and, like pay and communications, training and development may have become something of a "moving target" for organisations. So, instead of being satisfied with what employers are delivering under this new deal, a dynamic is set in progress where employee expectations with regard to training and career development increases rapidly and, consequently, lead to constant and increasing frustrations as employers are seen to fail to meet their side of the bargain.

Second, job security remains, and will continue to be in the near future, a key source of worry for many employees who work in downsized organisations. In a study that is surely one of the most important antecedents of the psychological contract literature, Alan Fox (1974) criticised the assumption of a natural consensus underlying much management practice and pointed out when workers perceive low trust initiatives on the part of management, these will be met by low trust responses. This low trust dynamic in the employment relationship is often masked by outcomes such low labour turnover and absenteeism. However, such apparent behavioural commitment should not be taken as evidence of attitudinal commitment or employee satisfaction with their "lot". Instead, it should be read as evidence of an asymmetrical power relationship in which workers are fully aware that no real alternative employment exists for them.

Finally, what employers sometimes regard as providing suitable training and development for employability is often at odds with what employees perceive as career-enhancing, even in relatively low discretion jobs. Thus employers' concerns with firm-specific training needs to be matched with individual needs for external employability if the revised new deal is to be seen as fair by employees. However, such a match can only be brought about when there are open and realistic discussions by both parties concerning their mutual expectations, perceptions and obligations with respect to training and career development.

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R. Wayne Pace, First President of the Academy of Human Resource Development: An Historical Perspective

Heather Hanson
Gary N. McLean
University of Minnesota

As a step in collecting living histories of HRD leaders, this paper provides a brief history of R. Wayne Pace, first President, and arguably (as many were involved) the founder, of the Academy of HRD. Original documents, an historical video, and electronic conversations with him and six colleagues were used. Pace has been a leader in school, church, professional, and personal lives. Pace exhibits a common characteristic of HRD leaders–an eclectic background in Organizational Communication and HRD.

Key Words: History of HRD, Academy of HRD, Wayne Pace

Over the years, and from its multiple roots, Human Resource Development (HRD) has produced many leaders who have made significant contributions to the field. The Academy of Human Resource Development (AHRD, the Academy) has recognized some of these leaders in its HRD Scholars' Hall of Fame. Most of those currently recognized are no longer alive. However, there are many leaders who are still alive and whose histories have not yet been adequately captured. One of these individuals is R. Wayne Pace, the first President and arguably the founder of the AHRD. In this paper we will present a brief history of Dr. Pace, highlighting his contributions to the field of HRD with specific emphasis on his contributions to the founding of the Academy. We see this effort as a first step in beginning to capture the histories of significant leaders in HRD while they are still alive to assist in the writing of those histories.

Research Problem

Often, histories are not written until the people involved are no longer alive to participate in the writing of those histories. While there is some benefit in writing a history from the perspective of hindsight (including the greater willingness of participants to offer negative observations or criticisms), there are also benefits in writing such a history while those involved are still able to participate. This is not an either/or question; present histories can always be revisited in the context of new insights that might come to light after the person involved is no longer alive. In this paper, we intend to provide a brief history (limited by the page limitations of the paper) of Dr. R. Wayne Pace, with some information on his personal life, but concentrating on his professional life and, specifically, his involvement in the founding of the Academy of Human Resource Development.

Significance of the Problem

The field of Human Resource Development has not done a very good job of capturing its own history. In another paper (Azevedo & McLean, in process), several texts in Human Resource Development were reviewed to determine their perspectives regarding the history of HRD. Many of the texts were silent about its history, while the others included only a very short history of the field. Few articles were found about its history, either, and few articles were found that provided a detailed history of the individuals who have been influential in the development of the field. This is a deficiency that needs to be remedied. An ancient Chinese proverb says that one should "...foresee the future by reviewing the past" (Kuo, 2001). By looking to our former leaders, we can better prepare our leaders for the future.

In contrast, the 1982 Yearbook of the American Home Economics Association provided a history of 70 of the leaders in Home Economics Teacher Education (Bailey & Davis, 1982). What a wonderful contribution such a book could make for HRD! We hope that this paper will serve as a catalyst to encourage researchers in the field to continue this beginning step, ultimately resulting in a book of such biographies, or, perhaps, an issue of *Advances in Developing Human Resources*.

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Historical Research Methodology

Gottschalk (1969) identified four essentials in writing the history of any particular place, period, set of events, institutions, or persons:

- the collection of surviving objects of the printed, written, and oral, of any materials that may be relevant
- the exclusion of those materials (or parts thereof) that are unauthentic
- the extraction from the authentic material of testimony that is credible
- the organization of that reliable testimony into a meaningful narrative or exposition (p. 28)

Similar to Gottschalk, Shafer (1974) presented three well-agreed-upon elements of method in conducting an historical study: learning what categories of evidence exist, collecting evidence, and communicating evidence.

For this paper, we first contacted Dr. Pace and obtained from him his curriculum vita, a personally developed history, a videotape of him sharing his history in an interview (Baldridge, 1989), a list of eight colleagues whom Pace was willing to contact to give his personal permission for us to seek additional information about him via e-mail, and the documents generated in the development of the AHRD. In addition, we were given permission to contact Dr. Richard Swanson, one of the key players in the founding of the AHRD. From the vita, we identified articles, textbooks, and other publications. All of the suggested colleagues were contacted, as was Dr. Swanson. Six of the nine colleagues contacted participated in providing information based on a set of questions sent to them (see Appendix). Dr. Pace also interacted with us via email throughout the process of writing this paper to provide additional information (at one point he indicated that we were being "very curious," but he generously responded to all questions posed).

There is one major problem in doing a history of a living person. For many reasons, not the least of which is continued friendship, in a living history it is very difficult, if not impossible, to be critical. None of the respondents provided any information that one might consider critical. Likewise, it would be an unusual person who would provide critical information about himself. Thus, there is nothing in this history that one would consider critical. No one, however, is perfect, and there are clearly areas of weakness or criticism that should be included in this history if it is to be truly authentic. Perhaps that aspect of the history will need to wait until after Pace's death.

Wayne's World

A colleague, Ken Baldridge, said of Dr. R. Wayne Pace, "His interests are varied; his sense of humor is infectious; he is constantly involved in a writing or consulting project—his energy seems boundless." This is a common perspective of those invited to comment on the work and personality of R. Wayne Pace. He has influenced many aspects of the education community, and in this paper we will examine many aspects of his life.

Wayne's Pre-professional Life

Pace grew up in a small community in Summit County, Utah. He attended North Summit High School. In high school, he was already exhibiting leadership abilities, serving as class secretary in each of the upper three years. He was also very active in athletics, lettering in four sports--basketball, football, baseball, and track. In his senior year, he captained both the basketball and football teams. Pace also participated in the school's debate team and his 9th grade class play.

He graduated in 1949 and decided to attend the University of Utah in the College of Education, on a scholarship based on his high school achievements. While he did not feel a strong pull toward education as a major, he declared that as his major as a way of retaining his scholarship. He majored in secondary education with a focus on Language Arts. This program was an experimental interdisciplinary program consisting of a combination of courses in English, journalism, and speech. Pace was one of the first students admitted to this program. In 1953 he graduated with a teaching certificate and his B.S. in Language Arts.

Pace claimed that he was a late starter in the dating game, but, as a popular athlete, he quickly caught up. His first steady girlfriend was his wife-to-be, Gae, whom he met in 1952. They were introduced in the driveway to his apartment, as his neighbor was giving her and her friends a ride home from a social activity at church. Gae was a bookkeeper at an insurance company in Salt Lake City at the time and dated Pace until March 19, 1953, when they were married in Salt Lake City.

After receiving his bachelors degree, he spent some time in the service. On July 28, 1953, he was inducted into the Army and stationed in Monterey, CA. Assigned to the Sixth Division of the Army, his duties included issuing military ID cards and Privilege Cards for dependents of military personnel. During his time with the Army, he participated in the All-Church basketball tournament and also formed a theater group and produced the operetta,

HMS Pinafore. The theater group performed for the soldiers in the area and also went on tour to Utah and performed at Salt Lake City and Ogden.

Pace's teaching career started at Box Elder County High School in 1955. Here, he taught speech, drama, and English; he was the coach of the debate team, director of two major theatre productions, and teacher in at least four courses. After a year at Box Elder High School, he decided to continue his college education on the GI Bill. After looking around at his options, he was offered an assistantship at Brigham Young University. In this position he was responsible for teaching an Introduction to Public Speaking class. Along with this job, Pace assisted with the debate team and other activities in the Speech and Drama Department. In 1957 Pace received his masters degree in Public Address and Rhetoric; his thesis topic was "A Study of the Speaking of B.H. Roberts—The Blacksmith Orator."

His time at Brigham Young led him further into his collegiate career. While traveling with the debate team, he met a man who would have a large influence throughout his life. W. Charles Redding was a speaker at one of the debate meets that Pace attended. He introduced himself to Charles and realized during his presentation to the debate team that Redding had taken a position at Purdue University. Pace followed his intuition and decided to go to Purdue and pursue his doctoral degree under the direction of Charles Redding. In 1960, Pace received his Ph.D. from Purdue University in Industrial Communication. He was one of the first doctoral students under Charles Redding. His doctoral dissertation was, "An Analysis of Select Oral Communication Attributes of Direct-Selling Representatives as Related to Their Sales Effectiveness." The subjects for this dissertation were Avon sales people who bought copies of his completed dissertation to have at the company headquarters. That was a minor landmark around the school; not too many people sell copies of their dissertations. He then worked for a year at Purdue University as an instructor in the Department of Communications.

University Career

Pace then was offered (and accepted) a position as Associate Professor at Parsons College in Fairfield, Iowa, in the Speech and Drama Department. The Chair for the Speech and Theatre Department at Parsons College was the individual who invited Pace in for the interview; he also was familiar with the work of Charles Redding. The Chair had told Pace that the reason he was invited in for the interview was because he listed organizational communication as his specialty, and he had been unable to find any other candidates who admitted to having a background in communications. The quality of his work led to his being selected as Department Chair in 1962. He described his work at Parsons as a fantastic experience, where the college was rapidly developing with enthusiastic faculty and some national publicity. One advantage of being at Parsons was its compensation that was quite a bit more than what others were offering for similar positions. Also, the President of the College was very insistent that Pace join them by giving him a local country club membership, a $5,000 interest free loan to buy a house, and the rank of Associate Professor. On top of all this, be got an additional $5,000 and a guaranteed $500 raise each semester he was employed there

While at Parsons College, he had a chance to explore another opportunity as they were on the trimester system. Under this system, faculty taught for two trimesters and then took one off. In 1961, he took his trimester off to serve as a visiting professor at Bowdoin College in Brunswick, Maine. Pace stated that his experiences there in the Department of English were very valuable, and he has fond memories of his time there. After this trimester, he returned to Parsons College to finish the year.

Pace was climbing through the ranks in the education field very rapidly and was greatly enjoying the work he was doing. His next move was to Fresno, CA, to California State University in the Speech Arts Division in 1962. He spent four years there as Assistant Professor and Head, Public Address and Communication Area. He also had the opportunity to work as the debate coach and enjoyed that work and travel tremendously. At Fresno, Pace hired new faculty members for the Speech Communications Area.

One of the most exciting and fulfilling career moves for him was to the University of Montana. He spent six years there as Professor and Chair in the Speech Communication Department. Here he was able to influence the program greatly and actually built the Speech Communication program, which was later renamed, Interpersonal Communication. As chair of the Department, he had a chance to hire many new faculty members. He called upon many past friends and colleagues to join him to build a strong foundation of highly talented professors to work in the field of communication. Pace was also the creator of one of the first courses in organizational communication, which was very cutting edge for that time.

From the University of Montana, he was hired away to the University of New Mexico as Chair of the Communication Department. In New Mexico, Estelle Zannes, a colleague of Pace's, said, "The best years were when Wayne was the chair. He brought his energy, enthusiasm, and good sense to the department." One of his major accomplishments here was the development of one of the first undergraduate programs in Organization

Development. This was seen also as very much on the cutting edge as far as curriculum development went at New Mexico. At this institution, he introduced a relatively new approach to the basic course in communication. It was handled more like a physics class, in which the faculty illustrated principles by conducting experiments and "interviewing students in the audience like Johnny Carson and talk-show hosts." Here, they also designed courses that could be taught using the large "kiva" or auditoriums to teach 300 students per section. This style was much more interactive and included a lot more student participation than similar courses in Montana.

Move to HRD

Pace's next move was to Brigham Young University in 1978. Here he established a program in Organization Communication that had significant national publicity. At this time, his career started to take a change in direction. In 1987 he took an exchange position at Brigham Young University in Hawaii (BYU-Provo and BYU-Hawaii had a common administration at that time) in Human Resource Development. This was a change from his strong background in communication and speech departments. Pace stated, "As I studied careers in organizational communication, I concluded that communication was the theory base for all programs that involved learning, that learning was simply a sub-division of communication." From this he wrote his first papers on "organizational communication as the theory base of training and development." From here he was invited to participate in the first conference on the academic preparation of practitioners in training and development sponsored by ASTD. At this conference he argued that "communication, not education, was the appropriate theory on which to base an academic program."

From here, he took a different position within Brigham Young University, transferring back to Utah in the Organizational Behavior Department in the Marriott School of Management. The management school in Utah resisted the addition of a human resource development department and eventually worked out a way to phase it out as it was seen as overlapping with much of the material that other management classes covered. The HRD program was disassembled by 1990, and there are no remaining elements of the program at BYU. (The same outcome has also occurred at BYU-Hawaii.) At this time, many communication departments were being torn apart and installed in different programs, while others were growing stronger. Pace stated his belief that the outcome depended on how well the department was established and also the image it was trying to hold up. Also, he stated, "HRD will never flourish in schools of management because they have incompatible driving forces."

There are many other significant contributions that Pace has made to the field of HRD. He attended and delivered papers at, and participated in, all three or four of ASTD's conferences on the Academic Preparation of Practitioners of HRD; and he established and advised the first official student chapter of ASTD at BYU-Utah and helped the chapter receive various national awards. He also helped create the Professor's Network of ASTD and served as founding co-chair; he served on ASTD's Professional Development Committee during the Standards or Competencies studies, participated in the design and implementation of the first competency study, and served as a role expert in both studies. Pace published three books on HRD, *Analysis in Human Resource Development and Organization Development* (1989), *Human Resource Development: The Field* (1991), and three editions of *Organizational Communication: Foundations for Human Resource Development* (1983, 1989, 1994). Finally, he served on the Executive Committee of the Management Development Professional Practice Area of ASTD and received an award for a *Bibliography of Literature on Management Development (1987)*, and he presented numerous papers on the theory and practice of HRD at professional meetings in the field of communication, broadening the understanding of HRD in other areas.

Personal Characteristics

This research has identified a number of personal characteristics possessed by R. Wayne Pace that have contributed to his success. Pace identified three such characteristics about himself: the tendency to initiate action, persistence in goal achievement, and the ability to make friends. Pace said that he has "a tendency to want to move things forward," resulting in action taken more frequently and quickly then may be the case with others. With goal achievement, Pace stated that he has the "tendency to pursue a goal with dedicated tenacity." Last, in Pace's mind, "he has been able to make and maintain friendships with a wide range of individuals who both agree and disagree with his own philosophy, but who are willing to continue to be friends."

His colleagues and friends also attributed much of his success to his personal characteristics. According to Baldridge (2001), "He has an enormous capacity for work, his determination to keep busy doing worthwhile things, his insistence upon sound scholarship, and his refusal to be thwarted by temporary obstacles." Pace was described by Eric Stephan (2001), a professor at BYU, as an "empire builder." His colleague described this concept as

meaning that, "when he comes into a situation, he immediately thinks about a way it is organized and how to make it better. Few people see how to improve something as quickly as Pace, and, therefore, they usually end up in his dust trying to figure out where he is taking things." Stephan also stated that Pace has a great philosophy on education: "Make knowledge useful."

There are many people on whom Pace has had a large impact or influence. The phrases that were heard most often in this research were that he was very supportive and encouraging of his co-workers, he was a joy to be around, and he was a "professor's professor." While he had fun, he always exemplified what a professor is supposed to do: explore new ideas, present papers, do research, and write books, but most of all help students to succeed. Pace made a big impact on Baldridge (2001), who stated, "Wayne's personality has had a decided effect upon me as it is nearly impossible to be anything but upbeat whenever he is around." Another quote from a colleague of his states, "If it hadn't been for Wayne's influence, I never would have seen the fun of writing articles and books." Pace has left a major impact on the people with whom he has worked.

Influencers

Not only did Pace influence many, but also there were many people who influenced Pace. In an interview, Pace listed three main influences on his life. The first of these is his spouse, Gae Tueller Pace. According to Pace, "she has been supportive through numerous major moves, cared for six children, and ensures some continuity in their lives as they entered and exited different cultures and crossed numerous time zones." Also, "her psychological, physical, and spiritual stability have sustained them through a vast number of dramatic changes."

The second most influential people in Pace's life have been his parents, Ralph and Elda Fernelius Pace. They were owners of a rural small business that dealt in general merchandise for farmers, ranchers, and miners. Pace, being the oldest, had the chance to participate in the business through various jobs, such as pumping gas, mixing milk shakes, and delivering bags of cement. Pace stated that his parents instilled in him the strong desire to perform well and to pursue higher education.

The person who influenced his professional career the most was Dr. W. Charles Redding, his major professor at Purdue University. Redding was the first person who served as an instructor, advisor, and friend to Pace, all three, and who also provided mentoring. He spent countless hours with Pace--redirecting his energies, taking him out on consulting jobs, and providing professional support, both in school and afterwards. Pace stated that even today he has a picture of Charles prominently displayed on a shelf in his office, just to make sure that his standards at least reach towards his.

Academy of HRD

One of the major contributions Pace has made to the field of human resource development has been the creation of the Academy of Human Resource Development. Richard Swanson (2001), a former President of the Academy, stated, "Wayne has expended a great deal of energy for the Human Resource Development profession during his distinguished career and was a perfect founding president of the Academy of Human Resource Development."

The vision of this entity evolved out of a proposal Pace prepared around 1983 for the establishment of an Academy of HRD at Brigham Young University. The original proposal was "designed to advance the academic program there and to establish a way to accept financial donations for support of faculty chairs and the academic program." This original proposal, however, never got underway. In 1992, Pace prepared and distributed a paper at a meeting of the Professor's Network of the American Society for Training and Development (ASTD) urging that an Academy of HRD be organized separate from ASTD. According to Swanson, "Wayne was positioned perfectly between the unwieldy Professors' Network of the ASTD that was represented by Karen E. Watkins and the elitist University Council for Research on HRD that was represented by Richard A. Swanson." He had three main reasons for making this proposal: HRD faculty could associate and fellowship with one another in a separate organization; HRD faculty could be stronger advocates for academic programs within an organization created to support academic programs; and HRD faculty would receive stronger support for their research efforts in a separate organization.

There were many goals and expectations that Pace had for this Academy of HRD. To be successful, Academy members would have to have a great dream, in which true success would come only from taking some very practical actions. The Academy must raise its own expectations by setting demanding goals and expressing high aspirations for the field. Pace raised three issues at the start of this organization: the members of the Academy must share specific research designs to advance the body of research; the Academy must become a powerful vehicle for supporting faculty who are attempting to establish and strengthen academic programs in colleges and universities;

and the Academy should provide information about HRD, academic programs, and graduates of those programs to employers to convince them to look for HRD graduates when they have openings.

The Academy has made many amazing advances throughout the years. However, according to Pace, the goals and expectations Pace held for the Academy have not all been met. Pace has expressed the wish that the Academy would do more in assisting faculty in establishing new academic programs and advancing the status of current programs. Another aspiration for the Academy was to function independently with a full-fledged international office. For some time, it had an executive director on loan from the University of Texas while attempts were made to raise funds to hire a permanent director. Unfortunately, they were unable to raise enough funds from training and development and consulting organizations to hire a full-time director, and this has resulted in great regret for Pace.

There was much effort and time involved in founding the Academy. Through some key contacts, he was able to organize an office and get it up and running. Robert Cox arranged for the Academy offices to be in the same building in Austin, TX, as the International Communication Association and agreed to serve as interim executive director until the Academy could make other arrangements. Tom Schindel, a graduate student at the University of Texas-Austin, agreed to serve as Office Manager. In spite of this help, "simply put, it is unlikely that there would be an Academy of Human Resource Development without Wayne," stated Swanson (2001).

Actual work on organizing the Academy began after the 1992 meeting of ASTD in late May or early June. Because of Pace's involvement in many organizations, he was well acquainted with the effort it would take to organize a group this size. Pace spent a lot of time on the phone and writing letters to enlist the support of faculty for the Academy. Starting with the roster from ASTD's Professors' Network, Pace selected fifty or sixty people who he thought would support the formation of this Academy and assigned each of them to a committee. These committees were all very much standalone as Pace did little consulting with them. He appointed chairs for each committee and asked them to contact their committee members and work from there. He gave each chair a detailed description of what he thought the committees should do but left most of it up to the individuals involved.

Pace wanted to make participating in the Academy a memorable occasion. His plan for this was to provide some mementos to those who attended the first meeting and made a contribution to the organization. Through making contact with several publishers, he managed to gather from $500 to $1,000 from each in donations to pay for these items. The mementos included pens with the Academy of Human Resource Development on them, post-it note holders with the name on them, charter member certificates, and certificates for Fellows of the Academy (a concept that has not continued).

A meeting was arranged at Georgia State University to review and edit the by-laws. A small group of three respected members were asked to review and make any editing changes to motions coming from the group. Everyone who attended the subsequent chartering meeting held just before the ASTD Conference in San Antonio, TX, was put into a self-selected group with the responsibility to review the proposed by-laws and motions for approval. Throughout the meeting there were obvious differences of opinion among the groups that resulted in heated discussions, but, nevertheless, by 4:00 p.m. on May 7, 1993, all provisions of the by-laws had been edited, moved, and approved. After this task was completed, papers were submitted to the U. S. Internal Revenue Service to establish the Academy as a not-for-profit corporation. Within the next few weeks, the charter membership list included approximately one hundred individuals. Pace was subsequently elected President of the Academy, an office in which he served for one year, followed by two years as Immediate Past President.

Wayne's Life Outside of HRD

Pace's professional career has made an impact on his family. Not one of his children went into the education field. One of his younger brothers ventured into teaching but retired early and is no longer teaching. His mother, Elda, is very proud of his accomplishments, and his spouse, Gae, and children are all very supportive.

Pace has also achieved major accomplishments outside of his career in Communication and HRD. As Pace stated, "Raising a family of six very self-sustaining children, who are all married, and by the year 2001 have provided me and my spouse with twenty grandchildren, is a major accomplishment."

He has had continuous activity in the Church of Jesus Christ of Latter-day Saints ("the Mormons") where the callings were often very demanding of his time and talent. He recently served as President of the Sunday School of a local unit of the Church in which he managed instructional programs for almost 200 members. There is a long history of involvement in the church that streams way back into his family's history. The long and powerful tradition has had a significant though subtle influence on his professional career. He has striven to live by two major tenets of the LDS church: experiences in this life are simply preparation for the next life, so how people develop their minds and bodies and carry out responsibilities here contribute to what they will be able to achieve later; and people should

be honest, chaste, benevolent, and virtuous, and that they should obey, honor, and sustain the law. Pace has tried to live by these tenets and to allow these goals to affect his professional relationships.

Also, he was constantly involved in community-based organizations that were both a pleasure and a burden. Pace served in elected positions on the Board of Trustees of the Pace Society of America, "which is an association of people whose last names are Pace or who are descendants of Paces." The Board of Trustees is a group of thirty elected positions that publish the "Bulletin of the Pace Society of America" and holds an annual conference. He also served as President of a large chapter of the Sons of Utah Pioneers, and on the Board of local chapters of both Rotary International and Kiwanis International.

The Future

Pace's views on the future of academic programs in HRD are very enlightening. He thinks that most current academic programs will continue to be strengthened with the gradual addition of new faculty and an increase in students who select HRD as a major field of study. The resistance he has seen to HRD, he believes, will continue, but new academic programs in colleges may increase. The programs that seek to make knowledge useful so that students can compete with allied majors in the job market are most likely to succeed. Also, the elements of philosophy and practice of both organizational performance and organizational learning must be introduced into HRD academic programs in order for them to prepare students to compete successfully for jobs.

Pace is still active in this field of work. Presently he is a Professor Emeritus at Brigham Young University in the Marriott School of Management in the Department of Organizational Leadership and Strategy, from which he retired in 1996. Also, he is currently an Adjunct Professor at Southern Cross University in the School of Social and Workplace Development in Lismore, Australia, and will continue in this role until 2003.

Conclusion

R. Wayne Pace has had a prominent career, first in fields related to Communication and then in Human Resource Development. His many experiences have left a path for us to follow. He has been influenced by many successful figures, and, in turn, he continues to influence those around him. The career and life of this outstanding professional will always challenge those of us who follow to emulate his excellence.

Implications for HRD

First, it is critical that the field know and understand its pioneers and celebrate the contributions that they have made to the field. R. Wayne Pace is clearly one of those people whom the field needs to celebrate. Second, it is important for those who are entering the HRD field to know and understand its pioneers. Especially as the field matures, our pioneers who are aging will not be with us forever. It is important that we gather their information while they are still able to participate in developing this history. Third, Pace's life reveals the eclectic nature of the field, consistent with the findings of Worley and Feyerherm (2000) who found, in interviews with the early thought leaders in Organization Development, that their success was largely attributed to their "broad exposure and experiences to areas outside of the field of OD," with "almost half of the sample attributed their success to eclectic backgrounds, broad study curriculums, readings outside the field, and so on" (p. 10). We must resist the temptation of over-specialization in HRD. Finally, those who are in leadership roles in the Academy must continue to work to see that the founding vision of the Academy is fulfilled and that continuing efforts are made to expand that vision.

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Appendix: Questions for E-mail Interviewees

Research Questions for Wayne Pace

Personal
What are the personal characteristics you possess that you consider most important to your success? Why?
How has your personal connection with the Mormon Church affected your professional career?
Who has influenced you the most along your career path?
Outside of your career, what do you think have been your major accomplishments?

Family
How has your family affected your professional career? How did your career affect them?

Professional
When founding the Academy for Human Resource Development, what were your expectations or goals for the organization, and have they been achieved?
Please share with us some of the processes that were involved in the establishment of the AHRD.
Briefly, what have been the major influences in your career?
What have been the major obstacles for you to overcome in regards to your professional career?
What do you think your major contributions have been to the field of HRD?
What are your thoughts for the future of the field of HRD? Where do you see it going?
Where did your career start? Looking back at this, are you satisfied at how it progressed?
Who do you think have been the major contributors to the field of HRD?

Questions for Wayne Pace's Colleagues
(Please share stories with us, as well as answering the questions.)

How did you know Wayne? What were your connections?
How has Wayne influenced your career?
Besides your career, how has Wayne influenced you?
What do you feel are Wayne's major professional contributions?
To what do you attribute Wayne's success?
What do you admire most about Wayne?

HRD: A Perspective on the Search for New Paradigms in a Time of Crisis

Ross E. Azevedo
Gary N. McLean
University of Minnesota

Human Resource Development (HRD) has emerged as a field from a wide variety of root disciplines. Using Kuhn's and Nagel's frameworks, this paper explores the death of the mixed paradigm for HRD and the need to find a birthing process for the field, even though this birthing process may result in a diversity of new paradigms. In this essay, readers are challenged to enter into a dialogue regarding this birthing process.

Keywords: Theory, History

Human Resource Development (HRD), as a field of intellectual inquiry, has evolved as a mix of theory and practice, coming a long way since the term was first introduced (by Nadler in 1969?)(Nadler, 1970). An outgrowth, in part, of the vocational education tradition, HRD was intended to encompass more than vocational education, to be seen and applied more broadly to workplace performance and learning, and to give more to practitioners. What follows is what we believe to be a challenging inquiry into the mix of theory and practice as they have evolved in HRD. We base our exploration on two classics from the philosophy of science--*The Structure of Scientific Revolutions* (Kuhn, 1970), and *The Structure of Science: Problems in the Logic of Scientific Explanations* (Nagel, 1961). We invite the readers to accompany us on this journey into the world of theoretical development in HRD and the creation of a structural process for theory advancement.

The Research Problem

The purpose of this paper, then, is to set the stage for a new dialogue on theory and its development in HRD. Historically, the field has been marked more by practice than theory. Thus, we intend to challenge the existing practical orientation of HRD as it is currently viewed and support the need for other paradigms as a perspective for further development of theory in the field of HRD.

Kuhn (1970) used paradigm to describe theories and other phenomena (p. 11), leading to some confusion with the way in which paradigm is popularly used today. He viewed the relationship as follows: "To be accepted as a paradigm, a theory must seem better than its competitors, but it need not, and in fact never does, explain all of the facts with which it is confronted" (pp. 17-18). This relationship is further explained as Kuhn stated: "A theory accounts for the effects seen/perceived and provides scientists with a common paradigm for their research" (p. 15). A theory is described by Kuhn as being "used to predict factual information of intrinsic value" (p. 30), with "the emergence of new theories" being "generally preceded by a period of pronounced professional insecurity" (pp. 67-68).

This paper, thus, explores the interface of theory and practice as it has influenced past paradigms impacting HRD, is influencing theories in HRD currently, and will influence the emergence of new paradigms of HRD in the future.

The Historical Setting

The evolution from vocational education was complicated and could be characterized as more heavily focused on practice than theory. The evolution probably began as a result of the Industrial Revolution. According to Gilley and Eggland (1989),

> the earliest forms of training, often referred to as vocational education, was (sic.) provided by the apprenticeship system in colonial America. Apprenticeships were designed principally for the education of the poor. During this period, the workplace was not seen as a primary environment for human learning. (p. 8)

HRD's early focus in practice are further exemplified by DeSimone, Werner, and Harris (2002), who argued that the early roots of HRD included three: apprenticeship programs, vocational education, and factory schools. Nadler and Nadler (1990) argued that the earliest form of HRD goes back to the beginning of time and is focused almost

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exclusively on on-the-job training. They claimed that the primary users of HRD were the military, religious groups, and governments, though others (such as seamen) were also included. According to Gilley and Eggland (1989), other roots of modern-day HRD, all with a practice or practitioner orientation, include Taylorism, the organizational implications of the famous Western Electric research, the human relations school of management during the 1950s, the behavioral science movement of the 1960s, the influence of the American Society for Training and Development (ASTD), and, finally, the influence of international competition. Swanson and Holton (2001) provided a complete chapter in their text, which provides coverage from the early Greeks and Romans up to the present day. Blake's (1995) history of HRD focuses almost exclusively on anecdotes related to the field of Organization Development. The Lee and Stead (1998) article focused on the last half of the last century in the UK, beginning with the Second World War, an important point in the development of HRD in the U.S., as well. Henschke (1999) traced the literature related to the history of HRD, providing a very useful bibliography. In addition, he recounted the development of HRD during the last decade of the last century, focusing on the performance-learning debate. Shaw and Craig (1994) provided a visual time line of the history of the field, though it is heavily biased toward a history of ASTD and its influence on the field. Interestingly, Rothwell and Kazanas (1989) did not include any reference to the roots of HRD nor to the process of evolution. Neither is this question addressed in a more recent book published in the UK (Walton, 1999).

While there has been considerable interest in HRD about the definition of the field, with emphasis on HRD as a field of practice (see McLean & McLean, 2001, and Weinberger, 1998, for a review of international and U.S. definitions of HRD), it appears that very little attention has been paid to the history of the field, particularly from a theoretical perspective. In spite of the numerous references above, all of the coverage is superficial with no in-depth analysis. In contrast, Kuo (2001) has completed a very detailed history of HRD in Taiwan. There, it is very clear that HRD, which is seen primarily as training, developed from a strong vocational education background that emerged from the birth of the country in 1949, along with considerable input from consultants from the U.S.

From the perspective of vocational education, a classic textbook in the field (Evans & Herr, 1978) made no reference to HRD, but the index has numerous entries under "Training." That is not too surprising as the term, HRD, was still emerging. Today, the former University Council on Vocational Teacher Education has been renamed (University Council on Workforce and Human Resource Education) and fully includes HRD. In fact, it sponsored a book entitled *Beyond Tradition: Preparing HRD Educators for Tomorrow's Workforce* (Stewart & Hall, 1998).

Moreover, with the change in name came profound changes in focus and orientation. In addition to the almost sole root of training, today, we look to apply the skills of the academic and practitioner researcher to questions of organizational performance and effectiveness, organizational change, knowledge management, continuous process improvement, career development, employee retention, organizational culture, globalization, and more.

Equally challenging is the fact that these changes have not been viewed in the same way, theoretically or practically, worldwide. McLean and McLean (2001) found, for example, that there is a strong emphasis on community development through HRD in Thailand, that HRD is used almost synonymously with Human Resources in China and France, that HRD refers almost solely to training in Taiwan, and so on. Thus, great caution must be exercised in assuming what is meant when someone uses the term, Human Resource Development, and what one is referring to in discussions of the concomitant theories of HRD.

This litany of invaluable developments on the technical and practice sides of HRD has not been fully matched on the theory front. It is the authors' perspective that the amalgam of ideas, concepts, practices, and perspectives which has been drawn together as HRD has not yet benefited from the richest possibilities of developments on the theoretical side, which is consistent with HRD being a normal science.

HRD as a Normal Science

While some may look at these varied developments and see them as disturbing or threatening, Kuhn (1970) would have proffered a different notion, advanced because of what he identified as the progress of a normal science. In the interest of brevity, only those items of particular interest will be referenced explicitly, though this whole section evolves from Kuhn. For Kuhn (1970), a normal science advances through three stages of paradigm development--birth, life, and death--in response to the need to solve problems for the field of inquiry. Paradigms succeed and take over from their predecessors or competitors because they provide richer answers to the questions of import and do a better job of predicting the results of empirical research investigations. Kuhn did not argue that any "dominant" paradigm answers all questions better than its competitors/predecessors, only that it does better in the preponderance of cases. Equally important for Kuhn is the idea that this evolution of a paradigm is not planned in the sense that researchers start out by calling for the replacement of one paradigm with another. We agree with this perspective. The process is developmental in that research, which reveals a developing inability to explain, makes it abundantly

clear that the existing paradigms are falling short, creating a crisis, and leading ultimately to the specification of new paradigms.

It is in the process of investigating the empirical phenomena of the field that the paradigm has meaningful existence--and in some sense lives and dies for Kuhn (1970). The paradigm first has value by revealing the underlying nature of things in solving problems through the provision of explanations of precision in a broader variety of circumstances, in a sense defining the significant facts of the field, and doing so better than its rivals do. But, Kuhn pointed out. initially, it likely might do so on a rather limited basis by solving only a few problems (p. 23). It then takes on value because of the predictions it can make about what is presently unknown but is revealed by further scientific investigation, here matching facts with theory. The third and subsequent stage of a normal science involves attempting to reach out to a far wider array of problems than is initially addressed, producing predictions over a vast assemblage of phenomena.

The varied intellectual threads that have come together as HRD could lead to a perspective somewhat different from that offered by Kuhn (1970)--a view that, rather than moving through the three stages, we are now facing the task of creating an entirely new paradigm woven from the whole cloth provided by the varied theoretical threads of the present disciplines suggested earlier. Such a position follows from the contention that, since HRD is but forty years old, its paradigm structure has not had the opportunity to evolve through the cycle of birth, life, and death spoken of by Kuhn (1970). Rather than a single-track evolution of intellectual inquiry, with one paradigm that is dying and others being birthed, HRD may be facing the potential demise of several paradigms as the field ultimately coalesces around those standards of scientific practice that allow furtherance of the tradition of scientific research. What this likely means is that HRD is facing the birth of paradigms of its own while working through the death of those paradigms that have supported the diverse fields that have been incorporated into the science that is HRD. This speaks to a greater burden upon the field than would be the case with a singular paradigm model proposed by Kuhn (1970).

Thus, it is here, in the third stage, death, where, we would contend, HRD as an amalgam of many fields now is -- when it is apparent that the paradigm is falling short. As the acceptance of a paradigm grows, it becomes evident that it is not meeting the needs of the field. While it may provide predictions for a long list of phenomena, it also becomes evident that it is failing to be predictive of much of the richer array of empirical questions to which it is now being applied. While it may have been unable to address a few phenomena all along (which may have been acceptable because of its other successes), the paradigm now reveals its inability to be fully responsive to more and more of the empirical assessments to which it is put, creating a list of anomalies that grows. A major one, perhaps, is the ongoing concern of the field to determine ways to evaluate adequately its contributions to an organization. Other problems facing the field are significant questions about how adults who are fully developed can be changed; how to respond to a rapidly changing environment; how to deal with some of the most significant human issues of poverty, inequity, diversity, discrimination, and the like; determining individual learning styles and responding to them; and the inability of most people to deal with the ambiguities of life. It is this failure that now moves the field on to a new first phase of birth of new paradigms that will address these questions that are unanswered by existng paradigms.

Thus, what is particularly important at this juncture is that Kuhn would categorize these tumultuous experiences described above and expanded upon below as manifestations of a crisis within this field of intellectual inquiry. Kuhn (p. 67) called this awareness of crisis and theoretical anomaly the necessary precursors to acceptable changes (i.e., developments) in theory. What this involves, according to Kuhn, is wholesale destruction of existing paradigms and major shifts in the problems addressed and the techniques used in their investigation. We offer the following few examples as indicators of these shifts and changes in problems studied and techniques used as evidenced in HRD:

- Inability to provide an appropriate and practical model of evaluation. The complexity of the variables involved have made it impossible, to date, to provide evidence that HRD contributes to an organization's bottom line.
- Movement to qualitative paradigms rather than positivistic is requiring us to surrender the ability to predict.
- Difficulty in taking complex concepts and translating them into practical applications (e.g., through the use of Chaos Theory) brings charges from practitioners that research, and even the field, are irrelevant.
- Rampant tendency of practitioners to accept fads, without any evidence of successful application or sound theoretical constructs, has led many businesspeople and employees to see HRD as irrelevant and incompetent.
- Failure of HRD to impact the field; few practitioners are interested in, or aware of research, and so they do not refer to the research to find answers to business problems (McLean, 1998).

A recently convened Future Search Conference, co-sponsored by the American Society for Training and Development and the Academy of Human Resource Development (in June, 2001, in Orlando, FL), was intended to construct a future vision for the field. Over sixty participants represented most of the stakeholders in HRD. While it did have scholars and academics represented, practitioners were far more widely represented. From the authors' perspective, in spite of three days attempting to do so, the meeting was successful only in identifying 11 common

ground statements about the field. Most of these points were conceptual rather than applied, and they did not push us into the future. A subgroup is continuing to work on conceptualizing a vision of the future; many emails and subsequent meetings have occurred in these efforts, but, to date, there is no indication that progress is being made. Why did the meeting fail to produce such a vision? Perhaps it was because of the methodology used. Perhaps it was a factor of those in attendance. But both of these factors are indicators of the current state of HRD.

If one still questions whether HRD is a field in crisis, one needs only to have attended the 8th annual conference of the Academy of Human Resource Development held in the Spring of 2001 in Tulsa, Oklahoma, for evidence. Our perception is that many of the sessions ended up in matches of vigorous (and healthy) debate with contrary positions taken and steadfastly defended, suggesting the search for a new body of theory. As Kuhn would have said,

> ... the emergence of new theories is generally preceded by a period of pronounced professional insecurity... generated by the persistent failure of the puzzles of science to come out as they should....Failure of existing rules is prelude to a search for new ones. (pp. 68-69)

That insecurity is marked by debate, disagreement, and competition as the old and the new (or the developing) contend for primacy in explaining a field's world of inquiry.

This issue also may be considered in light of some of the topics explored in theoretical presentations at the 2001 Academy of Human Resource Development conference:

"Indigenizing Knowledge Transfer" (McLean, 2001)
"Using a Human Capital Framework to Inform Human Capital Investment Decisions" (Provo, 2001)
"The Real Debate: Who (sic.) Does Human Resource Development Serve?" (Ruona, 2001)
"Theorizing Human Resource Development" (McGoldrick, Stewart, & Watson, 2001)
"A Multilevel Theory of Organization Performance: Seeing the Forest and the Trees" (Fisher, 2001)
"A Performance Perspective Synthesizing Intellectual Capital, Knowledge Management and Organizational Learning" (Arnett, 2001)
"Is Knowledge in the Head or in the World?" (Torraco, 2001) and
"The Theory Challenge Facing Human Resource Development" (Swanson, 2001).

It is clear that the conceptual questions and concerns illustrated here, while regarded as positively expansive in the eyes of some, also would be described as chaotic by those who are looking for a unifying theoretical framework upon which to focus the intellectual inquiry of HRD. Such a situation is indicative of the nature of a crisis, according to Kuhn (1970). As argued above, this is a crisis born out of an inability to explain rather than cries to reject any existing paradigms.

What is interesting about this chaotic state of affairs, and what we must remember, is that it is not unusual but rather self-generated in the progress of a normal science, contributed to by each of us as a result of our research efforts. That is, many of the problems noted above are truly the result of our attempts to understand more deeply and broadly as the field has evolved from its predecessor fields, leading to new challenges and attempts to address them. In some sense, the nature of a science sets the stage for its own destruction--at least in terms of its paradigm base--as it evolves in the nature of its inquiry. Indeed, just as we would contend that the physics of Maxwell (1878) is not the physics of Einstein (1945) and the physics of Hawking (1988) is like neither of these predecessors, we must face the fact that HRD in the 21st Century is like none of its predecessors, either. In fact, the Academy of HRD's "Scholar Hall of Fame" members (Channing Dooley, Malcolm Knowles, Lillian Gilbreth, Kurt Lewin, B. F. Skinner, Donald Super, Robert Gagne, Gary Becker, Leonard Nadler) (HRD Scholar Hall-of-Fame, 2001), given this reality, consists of people who no longer speak today to the world of the 21st Century. This is true even though the phenomena being assessed and measured often are the same across paradigms. Thus, while a physicist in the 18th, 19th, and 20th Centuries may have been trying to explain gravity and planetary movement with the paradigm of the day, there are now black holes to complicate that analysis.

The resolution of this intellectual crisis, and the movement to a new paradigm, is not without considerable work and substantial resistance (Kuhn, 1970, p. 74). The emergence of new theories that are able to unify the field will come only after there is general acceptance within the academic and professional communities of the failure of the field, such as those referenced earlier, to solve the new questions to which its attention is directed and a recognition of the need for something different. Indeed, Kuhn argued that this might take decades.

Part of what slows the advancement of a field of inquiry is the tenacious resistance of many in the science to give up what they have accepted as fact and accepted theoretical foundations. The field abounds with such examples: Knowles' (1984) andragogy, Kirkpatrick's (1959) 4-levels of evaluation, Swanson's (1995) 3-legged stool, McLean and Sullivan's (1995) Action Research Model for OD, Cooperrider's (1986) concept of OD as Appreciative Inquiry, and Dannemiller's (2000) Large Scale Intervention Event. Such a list of such concepts is almost endless. In large part this stems from the fact that the traditional does work in dealing with *some* problems, creating a tendency to cleave to it in spite of evidence that it is no longer providing the comfortable answers it once did. Thus, Kuhn

(1970) pointed to the strong resistance to the "new" ideas of Copernicus (p. 67), Newton (p. 12), Priestley (p. 54), and others as evidence of how clinging to the traditional theoretical foundation slowed substantially the progress of science. Such resistance certainly exists in the field of HRD as well.

Proposals for New Directions

Readers may feel that they are alone in the academic wilderness among social scientists, treading on new ground in trying to deal with crisis in their discipline. But such is not the case. For exa mple, T. W. Hutchinson directed an essay in *Knowledge and Ignorance in Economics* (1977) to "'Crisis' in the Seventies: The Crisis of Abstraction." The problems were raised by much of the research activity of the economists of the day failing to address real-world problems, the work published was based on an extreme of abstraction, and economics was failing to account for the role of history in its work (Hutchinson, 1977). Indeed, there is no evidence that this crisis has been resolved through a movement to a new paradigm some three decades later. One has only to look to the annual presidential addresses of the leader of the American Economic Association for confirmation of this. See, for example, Eisner (1988), Debreu (1990), and Harberger (1998) for continuing discussion of particular aspects of this "crisis."

Recognizing that we are not alone in HRD as a discipline in crisis should be the first step in convincing us that we are on the first steps of a great journey--a difficult, challenging, and ultimately rewarding one. It seems appropriate to offer some road maps and guideposts that will assist us in our search. We do not offer all of the answers, for we do not know them yet. What follows is our perspective only; we recognize that other perspectives exist, and we ask those who understand and support them to join us in the journey. Our objective is to initiate and facilitate a dialogue in order to obtain new answers and insights, while having no preordained specifications as to what they should be. We seek broad participation and involvement, not limited and rigidly focused discussion.

Perhaps the first point we need to recognize clearly is that our discipline falls within the realm of "social science" as classified by Nagel (1961) in his work on scientific explanation. In no way meant to diminish this work, Nagel was offering a framework for our research approach, consistent with the tradition of scientific inquiry, while encompassing the methods and methodologies we use to address the particular nature of social science problems. In this recognition, Nagel focused on the uniqueness of research in fields like HRD and suggested direction for the pursuit of our work.

Foremost in Nagel's (1961) classification of social science, and what is dealt with explicitly in his book, is that we must not--and indeed cannot--do our research and theory building in precisely the same way the chemist, physicist, or botanist does. This does not mean we do not do scientific experiments; rather, the nature of those experiments is different. Nagel pointed to the "controlled experiment" or the "controlled investigation" as the indispensable approaches we social scientists must use in our inquiries. We do not generally utilize the rigidly controlled laboratory environment or research regimen/controls the hard sciences offer, but, instead, we must use different approaches and techniques that are customized to our ends in our quest for answers.

Nagel, in analyzing our work as social scientists, might be described as pointing out that ours is a far more difficult field of research inquiry than is found in the hard sciences. First, the variables we investigate are far more complex in many situations. Thus, while it may at first blush appear easier to assess training effort than it is to measure gravity, the reality is that "effort," and its various dimensions, is a far more complex variable than is gravity and that puts us to the test as researchers. Similarly, an intervention to improve productivity is a far more difficult enterprise than the attempt to obtain a better estimate of the speed of light. Here, the basic meaning of productivity is a question of enormous weight, and individual definitions will yield different levels of success; speed, or more precisely velocity, suffers from no such definitional questions (although the measurement questions may be profound).

A second clear difficulty we face in the social sciences is that our research methods may interfere with or in some way alter what it is we are trying to measure. In the first instance, what this means is that, by deciding what we study and then by doing the inquiry, we may actually affect the results of our efforts. The idea of a self-fulfilling prophecy comes to mind here, where sufficient concern about the existence of a particular phenomenon may lead to its occurrence.

Nagel (1961) pointed to a third challenge we face as social scientists trying to answer questions of scientific import, a difficulty that may substantially slow our efforts to find theories appropriate for HRD. It is easy, and quite natural, for us to ask questions of "Why.....?" as it is often important to us to find out why certain designs, efforts, programs, and projects do or do not work. Such an approach to intellectual inquiry is something we are always quite comfortable with because our efforts to improve always press us to identify the limitations in what we have done and eliminate them as we move forward. Nagel, however, pointed out that for theorizing in the social sciences we need to focus on the "how's" of the phenomena we are trying to explain. The problem of how versus why surfaces

frequently because of improvements in our ability to analyze and quantify empirical results. As our tools--particularly the quantitative/statistical ones--become more sophisticated and applicable to a wider range of problems and questions, meaning they are or appear to be more useful, it is easier for the focus to be on them and their explanation of "why" things happen than on the crucial theoretical interest of "how" things happen.

We now turn to the final consideration that makes the task of theory construction in HRD so very challenging--the value-oriented biases that we bring to our inquiry (Nagel, 1961). We can bring a sense of right and wrong, individual perspectives on what the social order should be, personal standards of what is socially significant to the research we conduct--and cloud our research in the process. Here, Nagel pointed out that our knowledge of this difficulty allows us to separate our values from the theory, to be honest to our results and to those who read them, and--more importantly--to isolate the conceptual framework we wish to identify. Put differently, we are charged with recognizing our value systems as generating a caveat to our work but not as applying a brake to it; our challenge is to provide the clarity and separation to make this distinction a valid one, apparent to all who follow and work with our efforts.

A major shift in research paradigm has occurred and is continuing within HRD. While many of those who earned their doctorates prior to 1970 were steeped in positivistic approaches to research as the *sole* research paradigm, the field has moved rapidly in other directions, including, today, interpretive, critical science, ethnographic, phenomenological, case studies, action research, and many other paradigms, and there is no longer the illusion that there is "one answer" to find.

Where Do We Go from Here?

What must we do as we attempt to find the new paradigms for the field of Human Resource Development. While not an exclusive list, we propose the following.

1. Continue the search for theories at all levels of analysis; to seek the one grand theory for HRD at this point would seem to be of little value in our quest.
2. In all of our work, ask the question, "how?"
3. Begin a search of alternative fields of inquiry which may--or may not--appear to be related to HRD.
4. On an international basis, obtain/create a taxonomy of what is believed to be important HRD outcomes in different countries and cultures.
5. Despite what has been said herein, seek to identify the international differences that make HRD inquiry varied across national/regional boundaries.
6. Explore more deeply what paradigms for HRD might best enable the field to contribute to the eradication of human rights violations across the globe.
7. Expand rather than contract our thinking--it is far too easy to keep our inquiry consistent with what we already know or desire to cling to from the existing paradigm rather than moving forward.
8. Ask basic questions, more basic than we typically have the courage to do:
   Why are we here?
   What are we trying to accomplish?
   Are we making a difference? If so, how?
9. Raise and discuss the issue of whether, given a particular national/cultural milieu, one, two, three, or more theories is/are appropriate.
10. Look to this inquiry as a challenge rather than a threat.
11. Expect the answers to come slowly--not quickly--as the search is likely to be a lengthy one.
12. Set up a "theory" chat room on the World Wide Web where theories/ideas/concepts can be put forth, explored, and argued. (This is something that the Academy could facilitate.)
13. Focus and refocus our thoughts at every opportunity to ask repeatedly the question, "How?" even as we ask the question, "Why?"
14. Recognize the existence of theoretical bases from economics, systems, psychology, and other disciplines that we have built upon in the past but also recognize that they are likely ultimately to prove deficient for HRD in the future.
15. Organize a theory-wide search effort, attempting to pull together those theories and elements of theories from any source that might play a role in explicating HRD activities.
16. Recognize that it may not be possible for HRD theory to be based on existing theory, particularly theoretical models from other fields of intellectual inquiry.

17. Organize theory sessions at the AHRD conferences where individuals concerned about theory can submit a brief list of concerns/ideas/structures/issues/suggestions in advance that could then be distributed in advance to those interested for discussion and analysis by the group in a working session environment.
18. Seek to identify the differences between causality and the underlying mechanisms of any processes we are investigating.

Conclusion

Obviously, one major conclusion to be drawn from the above analysis is that the theoretical crisis in HRD will be difficult to solve, perhaps taking the decades noted by Kuhn (1970). But that should not discourage us as the journey promises to be a valuable one that adds valuable insight to the field.

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Training Evaluation With 360-Degree Feedback

Froukje A. Jellema
University of Twente, The Netherlands

Training evaluation is an important issue in many organizations. Even though organizations are becoming more interested to measure the effects of their training investments, organizations often lack the tools for the measurement of training effects, especially at the level of changed behavior. This paper will focus on the use of 360-degree feedback for evaluation of changed behavior as a result of training. The results of an experimental study in a large Dutch hospital will be described and discussed.

Keywords: Training Evaluation, 360-degree Feedback, Behavioral Change

Human resource development (HRD) is a process of developing and unleashing human expertise through organization development and personnel training and development, for the purpose of improving performance (Swanson, 2000 AHRD). Training evaluation can be useful to find out whether investments in training are contributing to performance improvement. One evaluation focus is changed behavior as a result of training (Kirkpatrick, 1994). Though change in behavior is in most cases not an end in itself, it is a necessary intermediary step to evaluate whether the training contributes to performance improvement. That is why in this paper the focus is on the evaluation of behavioral change.

Evaluation of changed behavior is done for only 11 percent of the training programs, though companies expect to increase this proportion in the future (1999 ASTD report). A main reason why training evaluation is not often focused on behavioral change of trainees, is the lack of appropriate methods. The specific aim of this paper is to examine one particular method that may be useful in this context. This method is 360-degree feedback, where employees receive feedback about behavior from a 'full circle' of co-workers such as the supervisor, peers, subordinates and clients. 360-degree feedback may be used to determine whether co-workers have experienced a difference in the behavior of the trainee. The main research question of this paper is whether 360-degree feedback is indeed useful for training evaluation.

Theoretical Framework

Though the use of 360-degree feedback for training evaluation is often mentioned in evaluation handbooks (see for example Brown and Seidner, 1998; Kirkpatrick, 1994; Robinson and Robinson, 1989), this method has rarely been studied in an evaluation context, though often in an employee developmental context.

One study in which 360-degree feedback is used to evaluate a training program, is the study by *McLean, Sytsma, and Kerwin-Ryberg (1995)*. This study included 73 ratees, who received 360-degree feedback both before and two years after a training program. Though participants' skills increased during these two years, it was difficult to attribute this behavioral change to the training program, due to the long period between pre- and posttest and the fact that a control group was not included. The authors
concluded that 360-degree feedback should be applied very cautiously as a tool to evaluate training.

Another study, in which 360-degree feedback is used for training evaluation, and in which a design with a control group was used, is the study of *Van Sandick and Schaap-Neuteboom (1993)*. This study was situated in a large Dutch supermarket chain and focused on a training program for department-managers. This study included 162 ratees, distributed over two training groups and one control group. In this study a training effect was measured (i.e. 0.2 on a 5-point scale). However, this study was limited by the fact that only one supervisor and one peer were involved in the feedback.

Another example is the study of *Rosti and Shipper (1998)*, where 360-degree feedback is used to study the impact of training in a management development program based on 360-degree feedback. Feedback was collected both before and after the program to enhance learning and evaluate training. Results, when analyzed by means of a series of four matched-pairs tests, were supportive that the change in the experimental group was significantly different than the change for the control group, and in the expected direction.

Since organizations are becoming more interested in measuring behavioral change as a result of training, it is interesting to study the usefulness of 360-degree feedback for this purpose. Since previous studies in this area are rare and often limited, it was decided to use as strict an experimental design as possible to again look at the usefulness of 360-degree feedback for training evaluation.

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Research Questions

The main research question of this paper is whether 360-degree feedback can be useful for training evaluation. More specifically, the questions are:

1. Is training evaluation by means of 360-degree feedback reliable?
2. Is training evaluation by means of 360-degree feedback valid?
3. What training effects are found with 360-degree feedback?

Methodology and/or Research Design with Limitations

The methodology that is used to answer the questions, is a quasi-experimental study. This study is situated in a large Dutch hospital. Recently, this hospital has created a new professional job for nurses, the senior nurse, hierarchically situated below the head nurse. All senior nurses have to attend the course, that has been specifically developed for this function. This is an extensive course, consisting of 18 outdoor training days during a nine-month period. Coaching skills are an important part of the program.

At the time of this study, about 40 senior nurses were working at the hospital. Though all senior nurses have to participate in the program, only 14 nurses could attend at the same time. That is why it was possible to study three conditions. Group 1 had already started with the program at the beginning of this study and received only a 360-degree feedback post-test. Group 2 received a pretest with 360-degree feedback before attending the program, and afterwards a posttest with 360-degree feedback. Group 3 received the feedback at the same time as group 2, but did not attend the program. All post-tests took place after ten training days, about seven months after the pretest. It would have been preferred if the post-measurement had taken place at the close of the training program, but that excluded the use of a control group, since group 3 would have started with the training by then.

The Dutch 360-degree feedback instrument Reflector was used in this study, consisting of eight behavioral competencies: dealing with stress, integrity, active listening, creating partnership, diagnostic skills, stimulation, giving feedback, and adapting. Each behavioral competency consists of five items, so the questionnaire included 40 items. The response scales that are used in Reflector are 5-point scales were raters select a position between opposite statements of behavior. The reliability and validity of Reflector has been examined in previous studies (see Jellema, Visscher and Mulder, 2000) and was found to be satisfactory.

Each senior nurse was allowed to select his or her own raters, but preferably their supervisor, two peers and four subordinates. Clients (in this case: patients) were not included. The ratees were encouraged to ask the same raters to provide feedback at the pre- and posttest, for as far as this was possible. All ratings could by given anonymously. After the results were analyzed, the results were summarized in reports and send to the home addresses of the ratees. All ratees were invited to join in a follow-up session.

The post-tests included a retrospective self-test and a questionnaire with questions regarding background, motivation for the training program, perceived support on-the-job, etc. Out of group 2 and 3, eight senior nurses were found willing to participate in a coaching simulation, that took place at the time of the post-test. Main purpose was to study correlation between 360-degree feedback (post-test) scores and scores of the simulation and thus to gain insight into the validity of 360-degree feedback. The research design is summarized in Table 1.

Table 1. *The research design of this study*

Group 1	training	360° & retrospective self & background	
Group 2	360°	training	360°& retrospective self & background & coaching simulation
Group 3	360°	no training	360°& retrospective self & background & coaching simulation

Response

At the start of the study each group consisted of 14 senior nurses. However, several senior nurses could not partake because they were ill (especially in group 3, the group that was on the waiting list for the program), left the organization or did not want to cooperate. At the posttest, again several nurses were ill and could not participate. Table 2 summarizes the response.

Table 2. *Response of the evaluation at the OLVG*

	Pre-test	Post-test		Post-test		
	360	360	Background & Retrospective	360	Background & Retrospective	Simulation
Group 1		n= 13 (95 raters)	n= 13			
Group 2	n=12 (86 raters)			n = 12 (78 raters)	n = 12	n=4
Group 3	n = 9 (69 raters)			n = 7 (48 raters)	n = 7	n=4

In this paper, the focus will be on group 2 and 3, since these groups received a pre- as well as a posttest. The pretest included 21 senior nurses, 12 in the experimental group and nine in the control group. A total of 155 raters were involved, an average of 7.4 raters for each ratee. Raters were divided as follows: self (21), supervisors (20), peers (62) and subordinates (52). At the posttest, a total of 18 senior nurses again participated in the 360-degree feedback. One senior (in group 2) participated in the posttest but had not participated in the pretest. A total of 126 raters were involved, an average of 6.6 raters for each ratee. Raters were divided as follows: self (19), supervisors (17), peers (50) and subordinates (40). About 35% of the seniors had asked exactly the same raters as at the pretest. In the other cases, one or more of the raters at the posttest had not been included in the pretest. All senior nurses filled in the questionnaire with background questions and the retrospective questionnaire.

Since this study was a quasi-experimental study, and the groups were not selected at random, they were compared on several variables to find out if they were different (see Table 3).

Table 3. *The two groups compared on several variables*

Variable	Group 2 (n=12)	Group 3 (n= 9)
Gender	53.8% female; 46.2% male	77.8% female; 22.2% male
Age	36 (4.6)	34 (8.1)
Working experience	12.2 (5.4)	12.7 (9.6)
Experience senior nurse	.8 (1.3)	2 (1.8)
Experience coaching	66.7%	88.9%
Perceived need to develop coaching skills	8.3% very high; 75% high	11.1% very high; 66.7% high
Motivation for program	25% very high; 66.7% high	22.2% very high; 66.7% high

As can be seen in Table 3, the groups are different on many of these variables. However, differences between groups were tested by means of chi-square (gender and experience with coaching), ANOVA (age and need to develop coaching skills) and Kruskal Wallis (experience and motivation), and none of the differences are significant. This is probably due to the limited number of respondents that was involved in this study.

This limited number of respondents and the fact that respondents were not selected at random for each training group, is the main limitation of this study. Interpretation of results may be difficult due to this limitation. In addition, the ratees that were included at the pretest are not always (though often) the same individuals as the ratees at the posttest. In addition to this, it is a limitation of this study that it was not possible to train the raters in advance.

Results

In this section the following results will be presented: the psychometric properties of the 360-degree feedback instrument and the measurement of behavioral change as a result of the training.

Psychometric Properties of the 360-degree Feedback Instrument

In this section the focus will be on the internal consistency and inter-rater reliability and validity of the instrument.

Internal Consistency. Internal consistency is measured by means of reliability analysis of the scales. The analysis is done on the complete data set (pre- and posttest, including group 1). Table 4 summarizes the alpha coefficients.

Table 4. Internal consistency of the scales

Competency	Alpha
Active listening	.60 (n=357), .68 after deleting item 2
Creating partnership	.66 (n=341)
Diagnostic skills	.76 (n=333)
Stimulation	.70 (n=336)
Giving feedback	.74 (n=353)
Adapting	.81 (n=326)
Integrity (control competency)	.72 (n=356)
Dealing with stress (control competency)	.78 (n=349)

Two scales are below .7, i.e. active listening and creating partnership. The alpha of active listening can be increased to .68 by removing one item. The alpha of creating partnership and the other behavioral competencies can not be increased by removing items. When all items are considered as one scale ('coaching skills'), the alpha is .94 (n=272)

Inter-rater Reliability

Since most of the senior nurses have received feedback from more than one peer and/or subordinate, it is interesting to see if scores within each rater-source are more or less the same. Since many ratees have feedback from three or more peers and/or subordinates, it was not possible to use a correlation coefficient. That is why the standard deviation is used as a measure for within-source agreement. The data was first analyzed separately for each ratee after which an average score for all ratees was computed. The standard deviation is computed for all competencies and for an overall score of all competencies. Table 5 shows the average standard deviation for peers and subordinates.

Table 5. *Within-source standard deviation for peers and subordinates*

Competency	Peers	Subordinates
Dealing with stress	0.48 (n=44)	0.41 (n=39)
Integrity	0.33 (n=44)	0.39 (n=38)
Active listening	0.44 (n=44)	0.43 (n=40)
Creating partnership	0.48 (n=44)	0.49 (n=39)
Stimulation	0.43 (n=44)	0.48 (n=38)
Diagnostic skills	0.52 (n=43)	0.49 (n=38)
Adapting	0.48 (n=44)	0.59 (n=39)
Giving feedback	0.43 (n=44)	0.44 (n=39)
Overall score	0.45 (n=44)	0.46 (n=40)

The average overall standard deviation for peers is .45. This differs slightly for each behavioral competency, with most agreement between peers on integrity and less agreement on diagnostic skills. The average overall standard deviation for subordinates is .46, which again differs slightly for each behavioral competency. Most agreement between subordinates is on integrity and less agreement on adapting.

Since the main characteristic of 360-degree feedback is that several different rater sources are included, it is interesting to study agreement between rater-sources. Whenever a ratee has two or more peers and/or subordinates, an average score for these raters is computed. This average peer-score and average subordinate-score is used in the analysis. The analysis is based on the complete data set (both pre- and posttest, including group 1). For each ratee, a score was computed for self, supervisor, peer and subordinate. These scores were averaged for all ratees. In Table 6, the average scores are summarized.

Table 6. *Average score 360-degree feedback*

Competency	Self (n=53)	SV (n=50)	P (n=52)	SO (n=50)
Dealing with stress	4.03 (.61)	4.00 (.75)	3.96 (.55)	4.10 (.52)
Integrity	4.51 (.38)	4.57 (.38)	4.48 (.33)	4.44 (.51)
Active listening	4.01 (.44)	3.87 (.60)	3.90 (.38)	3.99 (.48)
Creating partnership	3.96 (.42)	3.96 (.67)	3.92 (.43)	3.90 (.58)
Stimulation	3.96 (.46)	4.01 (.64)	3.97 (.40)	4.04 (.43)
Diagnostic skills	4.00 (.43)	4.00 (.57)	4.05 (.41)	4.08 (.52) (n=49)
Adapting	3.97 (.57) (n=52)	3.87 (.74)	3.94 (.50)	3.98 (.58)
Giving feedback	4.08 (.45)	4.06 (.60)	4.15 (.41)	4.22 (.44)
Overall score	4.06 (.35)	4.04 (.54)	4.05 (.33)	4.09 (.45)

SV=supervisor; P=peers; SO = subordinates

As can bee seen, the overall scores of all rater-sources are very similar. The standard deviation in Table 6 indicates the differences between ratees. When the assumption is that ratees have different levels of performance, this coefficient should be large; it is, however, rather low.
Correlation between these sources was studied by means of T-tests, since the scores appear to be normally distributed. In Table 7 the coefficients are summarized. The marked coefficients are significant (at .95 level).

Table 7. *Correlation between rater-sources*

Competency	S-SV (n=50)	S-P (n=52)	S-SO (n=50)	SV-P (n=49)	SV-SO (n=47)	P-SO (n=49)
Dealing with stress	0.39*	0.20	0.08	0.44*	0.30	0.31*
Integrity	0.11	-0.04	0.05	0.15	0.27	0.00
Active listening	0.27	-0.03	0.09	0.07	0.12	0.04
Creating partnership	0.22	0.20	-0.13	0.17	0.26	0.06
Stimulation	0.18	-0.02	0.15	0.12	0.30*	0.07
Diagnostic skills	0.27	0.05	0.02	0.23	0.24	-0.16
Adapting	0.35*	0.23	0.11	0.41*	0.29*	0.01
Giving feedback	0.32*	0.03	-0.02	0.28	0.16	-0.01
Overall score	0.34*	0.00	0.03	0.29*	0.32*	0.03

SV=supervisor; P=peers; SO = subordinates

The fact that correlation appears to be moderate for most competencies and rater-sources, implicates that scores should by presented for each rater-source separately. This is in accordance with what you might expect for 360-degree feedback. Correlation between peers-subordinates, peers-self and self-subordinates, is in some cases even negative. When the correlation of the overall score is used as a measure of rater-correlation, the correlation between supervisor-self, supervisor-peer, and supervisor-subordinates is significant. These correlation coefficients are in agreement with the low correlation that is often found in other studies (see for example Harris and Schaubroeck, 1988). However, correlation between self-peer, self-subordinate and peer-subordinate are much lower than have been found in previous studies. Interesting to note is that the correlation between the supervisor and any of the other rater sources is significant, while correlation between the other sources is not significant.

Validity

To study the validity, the 360-degree feedback scores were compared to another, more objective, measure of the same behavior. Eight senior nurses were found willing to participate in a coaching simulation that consisted of a coaching conversation that the senior nurse had with an employee, played by an actress. The simulation focused on some of the competencies that had been included in the 360-degree feedback, i.e. active listening, creating partnership, diagnostic skills and stimulation. The eight conversations were recorded on videotape and two masters students evaluated the videotapes by means of the same questionnaire that was used for the 360-degree feedback. The students were trained in advance (with an extra videotape) to use the instrument and assess the coaching behavior. Each student rated each ratee, after which they discussed the results and tried to come to agreement. Since each student-score correlated significantly with the agreement-score, this agreement-score is used in the analysis. Because the simulation was in the same period as the 360-degree feedback posttest, the posttest scores are used. Table 8 shows the correlation that was found.

Table 8. *Correlation between 360-degree feedback and coaching simulation*

	Sim-360 Self (n=8)	Sim-360 SV (n=8)	Sim-360 peers (n=8)	Sim-360 SO (n=8)
Active listening	-.16	-.58	.31	-.70
Creating partnership	.17	-.33	.25	-.31
Diagnostic skills	-.25	-.72*	.40	-.44
Stimulation	-.44	-.60	.29	-.58

SV=supervisor; SO = subordinates

As can be seen, the correlation between the 360-degree feedback and simulation is in most cases negative. Only peers have a positive (though not significant) correlation with the simulation-score.

Measuring Behavioral Change as a Result of Training

In this section the focus is on the gain scores between pre- and posttest. First, it is important to focus more specifically on the self-scores, since these may be sensitive to 'response-shift bias': because ratees in group 2

receive intensive training of coaching skills, their ideas about coaching may change. This may result in the fact that self-scores at the posttest are based on another perspective of coaching, which makes them difficult to compare with the pretest scores. Self-scores could be lower at the posttest, even though performance has improved, because trainees have learned how difficult coaching actually is and are more demanding of their own performance. The same process may happen for ratees in group 3, who received no training but who did receive a feedback-report after the pretest, joined in a follow-up meeting and were encouraged to make a personal development plan. These individuals may also have changed their ideas about coaching. That is why a retrospective self-test was included with the posttest, where ratees were asked to again rate their coaching skills at the time of the pretest. Correlation between pretest self-scores and retrospective scores was studied by means of a T-test (see Table 9).

Table 9. *Correlation between 360-degree pre self-score and retrospective self-score*

Competency	Pretest self-score	Retrospective self-score	Correlation
Dealing with stress (n=31)	4.01	3.81	.68*
Integrity (n=31)	4.46	4.41	.40*
Active listening (n=31)	3.93	3.55	.43*
Creating partnership (n=30)	3.89	3.65	.09
Stimulation (n=31)	3.92	3.55	.31
Diagnostic skills (n=31)	3.94	3.59	.42*
Adapting (n=30)	3.95	3.64	.53*
Giving feedback(n=31)	3.93	3.78	.43*

Though the retrospective self-scores are indeed lower than the pretest self-scores, this is for most competencies not significant. That is why the pretest scores will be used in the further analysis.

In Table 10, the pre- and posttest scores are summarized. Again, the score for peers and subordinates is based on the average score. A paired samples T-test analysis was executed, to see if differences between pretest and posttest are significant (the significant differences are again marked in Table 10). Whenever there is a (-) in the table, this indicates that the posttest scores are lower.

Table 10. *Pre- and posttest scores of group 2 and 3*

Group 2								
Competency	**Pretest**				**Posttest**			
	S	**SV**	**P**	**SO**	**S**	**SV**	**P**	**SO**
Dealing with stress	3.82	3.70	3.84	4.17	3.96	4.06	4.22	3.98 (-)
Integrity	4.42	4.26	4.46	4.40	4.48	4.66	4.52	4.34 (-)
Active listening	3.87	3.58	3.80	4.08	4.03	4.10	4.08*	4.03 (-)
Creating partnership	3.90	3.50	3.96	3.98	4.03	4.16	3.91 (-)	3.74 (-)
Stimulatio n	3.81	3.64	3.96	4.05	4.00	4.32*	4.09	3.97 (-)
Diagnostic skills	3.78	3.56	3.97	4.18	4.05	4.20	4.25*	3.98 (-)
Adapting	3.69	3.36	3.96	4.03	3.95	4.36*	3.94 (-)	3.80 (-)
Giving feedback	3.90	3.56	4.10	4.33	4.15*	4.32*	4.33	4.24 (-)
Overall score	**3.90**	**3.64**	**4.00**	**4.15**	**4.08**	**4.27***	**4.17**	**4.01 (-)**
Group 3								
Competency	**Pretest**				**Posttest**			
	S	**SV**	**P**	**SO**	**S**	**SV**	**P**	**SO**
Dealing with stress	4.09	4.10	3.83	4.04	4.26	4.63*	3.81 (-)	4.12
Integrity	4.34	4.43	4.33	4.48	4.80*	4.87	4.49	4.34 (-)
Active listening	3.97	3.53	3.76	3.94	4.26	4.33*	3.87	3.79 (-)
Creating partnership	3.72	3.63	3.71	4.06	4.14*	4.27*	3.89	3.89 (-)
Stimulation	3.74	3.43	3.86	4.15	4.00	4.50*	4.02	4.07 (-)
Diagnostic skills	3.90	3.70	3.92	4.17	4.17	4.47*	3.99	3.99 (-)
Adapting	3.81	3.10	3.73	4.22	4.14	4.17*	4.01	3.89 (-)
Giving feedback	3.83	3.67	3.89	4.31	4.46*	4.63*	4.17	4.00 (-)
Overall score	**3.93**	**3.70**	**3.88**	**4.17**	**4.28**	**4.48***	**4.03**	**4.01 (-)**

SV=supervisor; P=peers; SO = subordinates; (-) = the posttest lower than the pretest

As can be seen, both group 2 and 3 have higher posttest scores than pretest scores for most behavioral competencies. Supervisors of both groups, have often significantly higher scores at the posttest, as well as the ratees of group 3 themselves. Peers in group 2, are also significantly more positive at the posttest than at the pretest for two competencies (active listening and diagnostic skills). However, subordinates of both groups are more negative (though not significantly) at the posttest.

Next, group 2 and 3 were compared to see if the gain scores between these two groups are different from each other. Since group 2 is the training-group, it was expected that the gain scores of this group are higher than the scores of group 3. The results are summarized in Table 11 (marked coefficient is significant).

Table 11. Gain scores of group 2 and 3

Competency	Group 2				Group 3			
	S	SV	P	SO	S	SV	P	SO
Dealing with stress	0.14	0.36	0.38	-0.19	0.17	0.53	-0.02	0.09
Integrity	0.07	0.40	0.07	-0.06	0.46*	0.43	0.16	-0.14
Active listening	0.17	0.52	0.28	-0.05	0.29	0.80	0.11	-0.16
Creating partnership	0.13	0.66	-0.05	-0.23	0.42	0.63	0.18	-0.17
Stimulation	0.19	0.68	0.13	-0.07	0.26	1.07	0.16	-0.07
Diagnostic skills	0.27	0.64	0.28	-0.20	0.27	0.77	0.07	-0.18
Adapting	0.26	1.01	-0.02	-0.23	0.33	1.07	0.28	-0.32
Giving feedback	0.25	0.76	0.23	-0.08	0.63	0.97	0.28	-0.31
Overall score	0.18	0.63	0.17	-0.14	0.35	0.78	0.15	-0.16

SV=supervisor; P=peers; SO = subordinates

As can be seen in Table 11, most rater sources indicate positive gain scores, with an exception for subordinates and for peers (regarding some competencies). A first quick look seems to indicate that the gain scores in group 3 are, contrarily to what might be expected, higher than those of group 2. However, in only one case is this difference significant, and more positive, for group 3.

Discussion

This study focused on the use of 360-degree feedback in a training evaluation context. First the focus was on the psychometrical properties of 360-degree feedback. Results indicate that the psychometrical properties with regard to internal consistency of the scales and inter-rater reliability are more or less in accordance with previous research. Alphas of most scales are sufficient (.70 or higher). Within-source agreement, measured by means of the standard deviation, was found to be high (.45 for peers and .46 for subordinates). However, this may be caused by the fact that the scores of most raters are very positive, as can be seen in the overall scores for each rater source (ranging from 4.04 to 4.09 on a 5-point scale). Subordinates appear to be slightly more positive than the ratees themselves, who are in their turn slightly more positive than peers are. Supervisors are of all rater-sources the least positive. However, note that this is still a very positive score. Interesting is also the fact that supervisors are the only rater-source that significantly correlate with the other rater sources. All other combinations have extremely low correlation.

Next, the 360-degree feedback scores were compared with scores of a 'more objective' method, i.e. a coaching simulation. The 360-degree feedback scores were negatively correlated, though except for one case not significant, with the coaching simulation. Only peers have a positive, though not significant, correlation with the simulation score. This is interesting since subordinates were expected to have the most relevant view in this case, since they are the individuals that are being coached by the senior nurse. However, the peers in this case are other senior nurses, who work closely with the ratee so they may also be a relevant rater-source. Nevertheless, these results do not support 360-degree feedback as a valid method.

Next, the focus was on the ability of 360-degree feedback to measure behavioral changes. First, pretest self-scores were compared with retrospective self-scores, to study response-shift bias. It appeared that retrospective self-scores are lower than pretest self-scores, for all competencies. The fact that retrospective scores are lower, though except for creating partnership and stimulation not significantly lower, may imply that response-shift bias actually took place. However, lower retrospective scores may also have different reasons, such as the fact that ratees lower their scores after they have seen the pretest feedback report, for example because they were 'over-raters' at the pretest.

Gain scores for the experimental group and the control group were compared to see if, according to what was expected, the experimental group improved more than the control group. However, the opposite seemed to be the case. Though ratees in both groups have higher posttest scores than pretest score from themselves, their supervisors, and their peers (except for some competencies), it is striking that the subordinates' gain scores of both groups are negative. This is interesting, since subordinates are expected to have the most relevant view in this case because they are the ones that are being coached by the senior nurse. An explanation could be that the pretest has raised the consciousness of subordinates of what to expect from a coach. A similar process as the 'response-shift bias' of trainees, could also have happened to subordinates, resulting in different expectations of their coach at the time of

the posttest. In a follow-up study interviews with participants will be used to answer the question why subordinates have lower posttest scores. Interesting is also that the supervisors have the highest gain scores. Though supervisors of both ratees in group 2 and group 3, have the lowest pretest scores for almost all competencies, they have the highest posttest scores for almost all competencies. Again, interviews will be used to try to explain this result.

The results further seem to indicate that the gain scores in group 3 are, contrarily to what might be expected, higher than those of group 2. This is especially the case for self-scores and supervisor-scores. For peers, the results are more mixed, with sometimes higher scores for group 2 (dealing with stress, active listening, and diagnostic skills and overall score) and sometimes higher scores for group 3 (integrity, creating partnership, stimulation, adapting and giving feedback). For subordinates the results are also mixed, sometimes higher (or better to say: less negative) for group 2 (integrity, active listening, adapting, giving feedback and overall score) and sometimes for group 3 (dealing with stress, creating partnership, and diagnostic skills). However, in only one case is this difference in gain scores significant, and more positive, for group 3.

As table 3 has shown, the groups were different on several variables. Respondents in group 2 are more often male and on average two year older than respondents in group 3. In addition, respondents in group 3 indicate that they have more experience as a senior nurse and more experience with coaching. It may be the case that senior nurses must have some experience in their new job as a senior, and especially with coaching, before they are able to develop their coaching skills. Another explanation may be that the nurses that have been to the training need more time before they are ably to change their coaching behavior. Note again that at the time of the posttest, the training program was not yet concluded. Further analysis of the data, especially combination of the gain scores with background variables, as well as interviews with some of the participants, may clarify this interesting result.

Conclusions, Recommendations and How This Research Contributes to New Knowledge in HRD

Organizations are becoming more and more interested in evaluating their training programs at the level of behavioral change, for which 360-degree feedback is often suggested as a possible method. However, critical reflections on this purpose of 360-degree feedback can also be found in literature (see for example McLean et al, 1993). In this paper the possibility of 360-degree feedback to measure behavioral change was the object of study. Contrarily to what was expected, this study indicated more behavioral change for the control group than for the experimental group. Still, this study has provided more insight in the psychometrical properties and the usefulness of 360-degree feedback. However, further experimental research is necessary, especially with a larger number of respondents than was the case in this study and with the possibility to randomly select ratees, to answer the question whether 360-degree feedback is indeed useful for training evaluation.

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Theory-driven Evaluation: An Alternative

Katie Robertson
University of Georgia

While researchers have advanced our ability to understand the effectiveness of Human Resource Development (HRD) interventions, practitioners are still in search of an evaluation model capable of accounting for the complex relationship that exists between HRD interventions and intended outcomes. The purpose of this article is to offer theory-driven evaluation as an alternative to existing HRD evaluation models. In order to overcome the problems faced by the existing models, this alternative not only establishes a casual link between HRD interventions and outcomes, but also goes further to address contextual factors affecting the intervention (Chen &Rossi, 1989).

Keywords: HRD Evaluation, Theory-driven Evaluation, Review

The field of Human Resource Development (HRD) has faced the issue of demonstrating that HRD interventions are directly contributing to organizational functioning. Therefore, evaluation of HRD interventions has become a critical issue in the field (Holton, 1995). It is imperative that HRD evaluators have the tools available to demonstrate the utility of HRD efforts. A review of the evaluations models available to HRD practitioners and academicians revealed that few models were available. And while recent evaluation strategies have expanded our ability to explain the effectiveness of HRD interventions, there still exists a need for an evaluation model capable of accounting for the complex relationship that exists between HRD interventions and intended outcomes. To examine the common evaluation models and strategies used within the field of HRD, a literature review was conducted. Based on the review, theory-driven evaluation is presented as an alternative evaluation approach.

Evaluation Models in HRD: A Review

To better understand the problem facing evaluators, a literature review was conducted to explore common models used in HRD evaluation. The review focused on the Academy of Human Resource Development (AHRD) conference proceedings for the years 1995-2001. The review revealed that the most common evaluation strategies in HRD include: Kirkpatrick's four level typology (Kirkpatrick, 1976), Holton's integrated model (Holton, 1995), the Performance-Learning- Satisfaction evaluation approach (Swanson & McClernon, 1996), Critical Outcome Technique (Swanson & Mattson, 1997), and various financial benefit assessments (Brauchle & Koenecke, 1999; Jacobs & Hruby, 1996; Swanson, 1998).

The most salient result of the review of the literature was the reliance on Kirkpatrick's four level evaluation model. Briefly defined, Kirkpatrick's hierarchical model has four levels: reaction, learning, behavior, and results. Reaction is what the trainee thought of the training intervention. Learning is the quantifiable indication that learning has taken place. Behavior is the assessment of the transfer of what is learned in the training intervention into practice. In other words, are the skills learned in training being used on the job? Results indicate the impact of the training on the desired objectives (Kirkpatrick, 1976). While the methodologies for the evaluation varied, Kirkpatrick was the guiding model in many cases (Hastings & Nichols, 1995; Moore, 1999; Nurmi, 1999; Ravishankar & Miller, 1997). In a broader literature review, Preskill (1997) found that 77% of journal articles pertaining to evaluation models contained Kirkpatrick's model.

While Kirkpatrick's four level model is a popular basis for research, the model does not go uncriticized. The model is often sighted as a mere taxonomy of possible intervention outcomes in need of further research to fully develop the theory (Holton, 1995). Furthermore, in practice the taxonomy is rarely fully implemented (Rothwell, 1996). A survey of evaluation practitioners revealed a narrow range of practices, indicating that the method most commonly used to evaluate interventions was class evaluations or "smile sheets" (Rothwell, 1996). Similarly, Dixon (1987) reports that when conducted at all, evaluation usually takes the form of participant reaction.

While criticism for Kirkpatrick's model was abundant, alternative evaluation models were scarce. In an attempt to strengthen Kirkpatrick's model beyond a simple taxonomy of results, into one that is able to account for causal relationships, Holton (1995) presented an integrated evaluation model. The integrated model adds intervening

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variables that influence the learning and transfer process that have been identified as affecting HRD interventions. This model is a step in the right direction, in that it moves away from a simple input/output model. While the integrated model presented by Holton is much more inclusive than the simple four level approach that proceeded it, several questions are left unanswered. First, this integrated model does not address characteristics of the intervention. Cervero (1985) suggests that processes in the design and implementation of the intervention should be related to the outcomes. In other words, this model does not account for the type or length of the intervention. Second, there is little room in the model for intervening variables other than those specified. The model does allow for unnamed external events to be added, otherwise, the model is a fixed set of relationships that does not allow situationally specific variables to be added.

A third model identified in the literature review was the Performance-Learning-Satisfaction (PLS) evaluation system (Swanson & McClernon, 1996). The PLS system identifies five major elements, one of which is an evaluation model. The model specifies the three domains (performance, learning and satisfaction), and then further breaks them down. For example, learning is broken down into knowledge and expertise, performance is divided into business results and financial results, and satisfaction is divided in to participant's satisfaction and sponsor's satisfaction. The PLS system also contains an evaluation plan, evaluation tools, an evaluation schedule and an evaluation report (Swanson & McClernon, 1996). While this model offers a comprehensive system for approaching an evaluation, it is based on the simple input/output concept, which has been criticized in Kirkpatrick's evaluation typology.

A fourth model that has been presented as an alternative to Kirkpatrick's four level taxonomy is the Critical Outcome Technique (COT) (Swanson & Mattson, 1997). The post-hoc evaluation technique is designed to systematically investigate performance outcomes. The purpose of COT is the investigation of intervention outcomes through definition, inquiry, verification and valuation of outcomes. This model has the potential to be a practical alternative for practitioners who need simple evaluation results, after the intervention has been conducted. A pilot test of the COT model revealed that the model resulted in information that was useful to intervention stakeholders (Mattson, Quartana, & Swanson, 1998). Additional results provided possible refinements to the original model.

Other evaluation methods identified in the literature review focused on demonstrating the financial benefits of HRD (Brauchle & Koenecke, 1999; Jacobs & Hruby 1996; Swanson, 1998). This information is needed to change the notions that HRD is simply an optional activity and the cost of such interventions is greater than the resulting benefits (Swanson, 1998). Brauchle and Koenecke (1999) present an overview of contemporary Return-On-Investment (ROI) approaches. The list of possible approaches includes a basic model, a cost/benefit ratio model, and benefit-forecasting model.

While this literature review has focused on evaluation models or strategies appearing in the AHRD conference proceedings, other evaluation models must also be considered. In a recent publication, Russ-Eft and Preskill (2001) comprehensively review eleven evaluation models and approaches. Furthermore, Hilbert, Preskill, and Russ-Eft (1997) present a comprehensive review of evaluation models proposed in the last four decades. Included in this review are Kirkpatrick's four level model and Holton's HRD integrated evaluation model, which are models also appearing in the conference proceedings review. However, seven other models not found in the proceedings were included in the Hilbert, Preskill, and Russ-Eft review including: Hamblin's five level model, Training effectiveness evaluation system, Binkerhoff six stage model, Input, process, output model, Richey model, Kaufman, Kellor, Watkin's five level model, and the Training efficiency and effectiveness model. This review concludes that evaluation has "focused on a limited number of questions, using only a few tools and methods" (p. 145).

This literature review reveals that evaluators have few alternatives to Kirkpatrick's simple taxonomy of outcomes. Furthermore, the available models do not account for the complex relationship that exists between HRD interventions and intended outcomes. While Holton's (1995) integrated model is moving in the right direction, even more is needed to fully account for the complex evaluation context. Preskill (1997) reiterates the concern about the few evaluation approaches available by noting how rarely "HRD professionals and scholars have tapped other disciplines such as public education and the government or military in their development of evaluation theories, models and approaches" (p.51). The problem then, is that evaluators have few models to choose from and the available models do not fully account for the complex HRD intervention context.

Purpose

The purpose of this paper is examine the evaluations models available to HRD practitioners. This review reveled the dominance of simplistic evaluation models. More specifically, the models identified in the eview can be classified as "black box" evaluation models, which focus primarily on input/output relationships, leaving out variables of context. The one-variable black box evaluation may be able to establish a connection between the HRD

intervention and outcomes, but it fails to explain the relationship. In order to build causal explanation, causal moderators or intervening variables need to be defined. Including such moderators results in a more complete understanding of the organizational conditions, individuals, and characteristics of programs that are the most likely to produce the desired outcomes (Cervero, 1985). The channels through which the program achieves (or fails to achieve) the desired results can then be mapped. By answering the "why" question evaluators will be able to contribute to our understanding of how to plan effective HRD interventions (Cervero, Rottet, & Dimmock, 1986). The problem is that HRD evaluators need evaluation models that open up the black box, resulting in information that can contribute to better program design.

Theoretical Framework

To address the problem identified above, theory-driven evaluation is presented as an alternative theoretical framework.. In order to overcome the problems faced by the existing models, this alternative not only establishes a casual link between HRD interventions and outcomes, but also goes further to address contextual factors affecting the intervention (Chen &Rossi, 1989). Theory-driven evaluation is a significant contribution to the evaluation practitioner because it attempts to move evaluation away from the black box evaluation, and answers questions about why the program worked. The remainder of this paper takes an in-depth look at theory-driven evaluation.

Theory-Driven Evaluation: An Alternative

Chen and Rossi (1983) developed the concept of theory-driven evaluation as a process capable of incorporating existing theoretical knowledge into the evaluation process. Theory-driven evaluation has been a movement of critical importance in the last two decades, in that it is a broader perspective of evaluation that has been conceptualized in the past (Chen, 1994). Central to theory-driven evaluation is the use of an intervention theory to examine the expectations of the intervention (Reynolds, 1998). Intervention theory is essentially a blueprint of how the HRD intervention is supposed to work. In other words, it is a "plausible and sensible model" of the intervention (Bickman, 1987, p.5). This model outlines the relationships between the treatment and outcomes. Additionally, other factors such as intervening and contextual variables are included (Chen & Rossi, 1989). The complete model should be a broad view of the channels through which the intervention will achieve the desired results. Theory-driven evaluation will be further explained in terms of the components of the intervention theory and the process involved in conducting the evaluation.

Components of an Intervention Theory

The intervention theory is a complex model that has several key components. These include: the problem, intervention strategies, and expected outcomes (Mohr, 1995). In addition to the three main elements of the model, other variables, intervening and exogenous, must also be specified (Chen &Rossi, 1983). A more detailed discussion of the each of these components follows.

*Three Main Components.*When the development process is complete, the intervention theory must include specification of three main elements, the problem, intervention strategies, and the expected results (Mohr, 1995). First, the problem should be defined including behavior to be addressed, where appropriate, and the population for whom the intervention is targeted. In addition to the "what and who" of the problem, the context in which the problem is located must also be considered. The description of problem context will be useful in explaining or interpreting the empirical findings of the evaluation study (Chen & Rossi, 1989). Second, the intervention content, or the elements of the intervention that will produce the effect must be outlined. It is important to identify the intervention as planned (Chen & Rossi, 1989). It will be shown later that the planned intervention can be very different from the implemented intervention. Finally, the intended or expected effects of the intervention must be clearly defined (Reynolds, 1998). The specification of outcomes deserves special attention. Mohr (1995) names the comprehensiveness of outcomes identified, as a factor that could increase utilization of evaluation results. It is well known that intervention outcomes are not always easy to identify, and the possible outcomes could be numerous. The process whereby the multiple intervention outcomes are specified should be a joint effort between stakeholders and the evaluators (Chen & Rossi, 1989). The evaluator has a special role in this process, and that is the consideration of unexpected and potentially negative effects of the intervention that stakeholders may overlook.

Other Variables in the Model. In addition to the three main elements, intermediate or intervening events must also be well specified (Mohr, 1995). Intermediate or intervening variables are factors that link the activities of the intervention with the intended outcomes (Mohr, 1995). For example, if an HRD intervention is designed to reduce absenteeism through increased work motivation, both the intervening variable (increased motivation) and the outcome variable (decreased absenteeism) must be included in the model, as well as the proposed relationship between the two. Not all models will have intervening variables as a part of the intervention theory. However, when intervening variables are present they should definitely be included in the model. The specification of intervening variables is beneficial in that a model that is well specified is more sensitive when tested (Chen & Rossi, 1983). That is, a model that includes each of the intervening steps can be used to determine exactly how an intervention worked or did not work. The intervention theory can then be used to track success, or for revision of the intervention as needed.

There should also be consideration given to what Chen and Rossi (1983) term "exogenous variables" (p.286). Exogenous variables are factors correlated with treatment variables that could also have an impact on the outcome variable. These variables are included because the outcomes of the complex social interventions are rarely the result of the treatment and intervening variables alone (Chen &Rossi, 1983). The effect of the correlation between these variables and the treatment can be eliminated by the use of a classical randomized experiment. However, randomization is often not possible in applied settings, and the inclusion of the variables in the intervention theory can further explain the intervention contexts and outcomes.

The Process of Theory-Driven Evaluation

Now that the concept of intervention theory has been explored, it is important to understand the process involved in conducting the evaluation. The process of conducting a theory-driven evaluation can be broken down into four steps, including the development of the intervention theory, implementation analysis, selection of relevant outcomes, and use of appropriate methodology. It is important to remember that each of the steps in the process is linear. In other words, each step relies on the successful completion of the previous step.

*Development of Intervention Theory.*The formulation of the intervention theory is an important first step, creating the foundation of the evaluation. The theory should be constructed with input from a variety of sources. First, the evaluator should look to existing literature for research findings that address similar problems, treatments or outcomes as the evaluation in question (Chen & Rossi, 1989). Also useful are pre-existing social science theories that pertain to the intervention theory being developed. Finally, the evaluator must seek input from intervention stakeholders and intervention designers. Often these individuals can provide unique insight into how the intervention was designed to address the problem (Chen &Rossi, 1989). During this process each of the intervention theory components should be defined. The resulting theory should outline the conceptual framework that is guiding the intervention and subsequently will guide the evaluation.

Implementation Analysis. The implementation of the intervention must also be carefully reviewed (Mohr, 1995). Implementation analysis is used to insure that the intervention activities are in place to bring about the desired outcomes (Mohr, 1995). In other words, it is a procedure used to determine if the HRD intervention is actually being conducted as specified during the development of the intervention theory. Chen & Rossi (1983) note that an intervention can look very different in theory than it does in practice. To illustrate, the authors cite instances in which "evaluators have found that some programs were never implemented, others were placed in the hands of inappropriate personnel, and in others implementation effectively negated the program process" (p.303).

The implementation system must be evaluated because it is a component that necessarily precedes all other components of the intervention theory. If the implementation analysis reveals that the intervention is not being conducted, or that major discrepancies exist between the intervention theory and the actual intervention, the evaluation process should be halted and the intervention theory developed should be revisited and revised. There is no need to continue to explain relationships between components in the model if the model is known to be incorrect.

These discrepancies in intervention implementation happen because of the complex implementation system that support the intervention. These systems consist of administrative rules and regulations, bureaucratic structures, and personnel who are responsible for intervention delivery (Chen & Rossi, 1983). Fortunately, the intervention activities tend to be open and easy to observe. This allows the implementation analysis to be a relatively simple process, requiring few of the evaluation resources (Mohr, 1995). Scott and Sechrest (1989) have further specified

that the treatment strength should be considered including, intervention specificity, intensity, and duration among other factors.

Determining Relevant Outcomes. As noted earlier, when the intervention theory is being developed, all possible outcomes should be identified. This list should include both positive and negative potential outcomes (Chen & Rossi, 1989). However, it will not be possible to submit all outcomes identified to actual research (Mohr, 1995). Instead the evaluator and stakeholders must collaborate to choose from among all outcomes identified, selecting only those most relevant. This is a decision that should be made with input from stakeholders so that the most relevant outcomes are selected. Careful selection of outcomes to be tested has the potential to increase utilization of evaluation results (Mohr, 1995).

Selecting Appropriate Methodology. Once established, the intervention theory can be confirmed or denied by investigating the linkages between the elements of the theory. Theory-driven evaluation is unique in that it does not rely on one type of research methodology (Chen &Rossi, 1989). Instead, a variety of research methods can be used to develop and test the intervention theory. In fact, because of the comprehensive nature of theory-driven evaluation, multiple methods are often needed to complete the entire process. Quantitative methodologies have dominated the discussion of appropriate methodology and will be discussed here. However, it should be noted that qualitative methods hold great promise in the future of theory-driven evaluation.

There are several techniques that have proven useful for theory verification. Causal modeling is one technique used to verify the intervention theory. Causal models can take several forms including, linear structural relations (LISREL), confirmatory factor analysis, latent variable structural models, and path analysis (Lipsey & Pollard, 1989). The use of causal modeling techniques requires that each of the components in the model be a variable. In other words, the components must vary in such a way that different levels have different values for each component (Lipsey &Pollard, 1989). This leads directly to the second requirement, which is that variables must be quantifiable, so that the differing levels or values for each component can be identified (Chen & Rossi, 1989). The advantage of using causal modeling is that it forces evaluators to get specific on the intervention theory components and the relationship between those components. Furthermore, advanced computer programs are available to assist the evaluator when testing the model. Lipsey and Pollard (1989) also present a simpler form of causal modeling called the "basic two-step" (p.320). The basic two-step narrows the focus of the evaluation to include the first intervening variable in the intervention theory, that is, the variable that is expected to change as a direct result of the treatment. The second "step" is the more distant variable that is expected to be impacted as a direct result of the changes in the first intervening variable. This technique broadens the range of a simple "black box" evaluation considerably by considering major mediating variables, but is not as likely to explain complex intervention contexts (Lipsey &Pollard, 1998).

A second methodological approach used in conducting theory-driven evaluation is known as Confirmatory Program Evaluation (Reynolds, 1998). This approach is also used to establish causal relationships between program, intervening variables, and identified outcomes proposed in the program theory, specifically in the post-program stage and periods of follow-up. While the exact process for conducting a confirmatory program evaluation is beyond the scope of this paper, the process is very similar to the causal modeling techniques described previously (the interested reader is referred to Reynolds, 1998). The process may be applied to experimental, quasi-experimental, or non-experimental data. One benefit of this approach is the ability to strengthen causal inferences "in most quasi-experimental and non experimental designs" (Reynolds, 1998, p.207).

Third, Mohr (1995) presents methodology designed to generate measures of effectiveness or adequacy. These two measures are based on a comparis on between actual results and the counterfactual, the state of the world without the intervention. For this comparison to be complete Mohr advocates the use of a control group. While the identification of this control group is often a difficult task, and by far the strongest limitation of this evaluation strategy, Mohr does offer many strategies for working with quasi-experimental designs. In addition, regression-discontinuity designs, and time series designs have been offered as strategies for evaluation when no control group is available. The benefit of this rigorous process is the ability to attribute causality to findings, if and only if designs are meticulously executed.

Conclusions

Introducing theory-driven evaluation as an alternative to available HRD evaluation models holds great promise. Like the Holton (1995) integrated model, theory-driven evaluation goes beyond a simple input/output model to consider important contextual factors affecting the intervention. The unique contribution of theory-driven

evaluation is the ability to consider a broader range of influences on intervention success in a situationally specific way. Theory-driven evaluation has many advantages, however, it will not be appropriate for every evaluation situation. Considering the advantages and disadvantages of the model can help determine when it is an appropriate evaluation strategy.

Advantages

The advantages of using theory-driven evaluation are numerous. First, the process of developing an intervention theory allows for detailed specification of the problem and the target groups. This process may assist intervention developers with specifying the reasons for the intervention in question. Furthermore, the intervening or causal mechanisms that are designed to address the problem also must be specified. So the way in which the intervention leads to expected outcomes must be clearly defined. This approach allows for the success or failure of the theory to be established, and also answers the question of why a theory did or did not work. Included in this is the distinction betwe[illegible]he failure of the intervention to have a causal impact and the failure of the theory to operate in the way specified.

However, as Finney and Moos (1989) point out, "the greatest benefit of a theoretical foundation for evaluation research is a very practical one- the enhanced usefulness of findings" (p.314). More, specifically, findings can help make instrumental changes to improve and develop the intervention and also influence the way intervention stakeholders conceptualize the problem and the intervention.

Limitations

Of course theory-driven evaluation is not appropriate in every evaluation context. The barriers to the use of this type of evaluation are quite serious. Bickman (1989) identified multiple barriers to use. First, increased costs can be incurred from activities such as, a lengthy planning session, the development of measurement tools and the collection of data on the various components of the model. Second, the evaluator must be technically competent in the strategies used to implement a theory-driven evaluation approach. In addition, the evaluator is expected to be knowledgeable in the problem and treatment literature. This creates the need for evaluators who are technically competent in evaluation research techniques as well as HRD. In this situation it is possible for the evaluator to be more knowledgeable about the intervention and it's content than the intervention developer. This could lead to role confusion as there are not yet clearly defined role specifications (or limitations) for the theory-driven evaluator. Patton (1989) stresses that theory-driven evaluation, which results in generalizations about causal linkages are very applicable in some situations, but not all situations. He points out that simpler evaluation models are sometimes more appropriate.

Implications for HRD

Theory-driven evaluation can contribute to new knowledge in the field of HRD in two ways. First, it may be possible to generalize the results of the evaluation to other situations (Chen &Rossi, 1989). In other words, if desired outcomes were produced through specified intervening variables, it may be possible to replicate the findings in similar intervention situations. Second, knowledge can be generated which contributes to the broader body of evaluation knowledge (Chen, 1994). This generation of new knowledge is crucial to the development of program evaluation as a field, and in turn to the field of HRD.

Future Research. The most obvious next step in the incorporation of theory-driven evaluation into the field of HRD is the use of the theory in an applied setting. Chen (1994) reiterates this need, calling for more research examples in various evaluation situations. The application of this model can be used to test the utility of the various methodologies presented. It must be noted however that the possible methods mentioned here are by no means a comprehensive set. The list of possible methodologies should be expanded to include qualitative and mixed-method designs. A second line of future research is also needed to identify intervening variables common to HRD interventions. This list may include known organizational and individual factors that could have an influence on the desired outcomes.

Implications for Practitioners. Theory-driven evaluation has the potential to change to practitioner's role in evaluation quite a bit. There is need for highly trained evaluation practitioners with the skills to carry out the rigorous evaluation designs. This involves qualitative skills needed for the development of the intervention theory,

as well as, quantitative skills to test the intervention theory. While the theory-driven evaluation process maybe more demanding on practitioners, the result is a comprehensive understanding of the problem, the intervention and the outcomes produced.

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Creation and Utilization of Evaluative Information for Organizational Learning

Youngsook Song
University of Illinois at Urbana-Champaign

From the literature review on organizational learning and evaluation, this paper defines the meaning of organizational learning and examines organizational conditions enabling the organization to promote learning at different levels and in various ways. This paper attempts to explain the linkage between organizational learning and evaluation by emphasizing the function of evaluation as a process of creating, distributing, and utilizing evaluative information. In addition, the conditions that influence evaluation to better function for organizational learning are investigated.

Keywords: Organizational Learning, Evaluative Information, Evaluation Use.

Today's organizations have been experiencing dramatic changes (Marquardt & Berger, 2001). Diverse forces, such as rapid development of technology, a more comparative and globalized market, and increased workforce diversity influence organizations internally and externally for changes (Dixon, 1992; Schwandt & Marquardt, 2000). To survive in this ever-changing society, organizations should be able to adapt and respond to changing conditions and learn and transform continuously.

Learning in the organization becomes more critical with increased complexity of internal and external environments (Sullivan, 1999). Organizations are not any more entities simply controlled and managed depending on a linear system model (Hudson, 2000). Inside and outside of the organization, many influences are interacting each other and all influences are changing dynamically. It becomes much less predictable to determine organizational situations, for instance economic trends, global markets, and internal/external customer needs. Today's organizations coping with escalating changes and complexity cannot help but have a focus on continuous organizational learning and development.

In order for the organization to learn, each organizational member should learn first. Although organizational learning is more than accumulation of all individual learning, it calls for individual changes in thinking and behavioral ways. With respect to the notion of lifelong learning, it is important that every person should be in a position to keep learning and need to have continuous learning opportunities throughout his or her life (Maehl, 2000). People accustomed to stability and permanence in the workplace may be more likely to face unanticipated problems and increasing demands for changes. They could lose even their jobs unless they deal with these unexpected problems and demands effectively. Over the past decade, many organizations have undertaken numerous kinds of layoffs in scale with various names of organizational interventions, such as reengineering, merger and acquisition, and downsizing, etc. It is essential for the organization as well as for him and her to determine whether he or she, as a member of the organization, can learn effectively and efficiently.

From the viewpoint of strategic alliance and management, all functions of the organization ought to be integrated with each other to achieve organizational goals, and its system and culture should be able to maximize all employees' capabilities to contribute to the organization's success (Gilley & Maycunich, 1998). Since organizational learning is a critically emerging organization goal, organizations need to consider the extent to which all functions and people in their organizations are ready to complete the goal and enhance it. In this sense, evaluation also should be a part of strategic organizational process. Preskill and Toress (1999b) propose that evaluation should and can be a means for enhancing learning in organizations. They believe that organizational learning will occur when organization members are involved in collaborative, communicative, and reflective evaluation processes (Preskill & Toress, 2000).

Evaluation has been performed in numerous ways and on different purposes. In general, it is believed that there are mainly three different types of evaluation use based on the purposes they serve, which are instrumental use (decision support and problem solving function), conceptual use (educative function), and symbolic use (political function)(see Leviton & Houghes, 1981 for details; Weiss, 1998b). However, as Shulha and Cousins (1997) indicate in their literature study on evaluation use, there is the emergence of a conception of evaluation as a continuous information dialogue. They discover that there are more frequent occurrences of evaluators and

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stakeholders sharing responsibility for generating, transmitting, and consuming evaluation information. This supports the aspect that there is a growing need to reconsider the roles of evaluation with regard to organizational learning and improve the ways in which evaluative information should be created, communicated, and utilized.

Purpose of the Paper

Because evaluation is a critical component for organizational learning, it should gain more attention as an effective way of creating and sharing information/knowledge and promoting learning. In this regard, the purpose of this paper was to examine how evaluation can play a pivotal role to enhance organizational learning by reviewing the related literature. More specifically, this review was guided by the following questions: 1) What are important organizational conditions to enhance organizational learning? 2) What is the main function of evaluation to enhance organizational learning? 3) Under which conditions can evaluation better function to enhance organizational learning?

Organizational Learning

There have been variations and even confusion in defining organizational learning. Before detecting the meaning of organizational learning from the literature, it might be worth mentioning a difference between organizational learning and learning organization. Although organizational learning and learning organization are used interchangeably in many forms of literature, they are different concepts. Preskill and Torres (1998) describe the difference as following.

> When we talk about learning organizations, we focus on the what, and describe systems, principles, and characteristics of organization that learn as collective entities. Organizational learning, however, refers to how organizational learning occurs, that is, the skills and processes of building and utilizing knowledge. It is particularly concerned with the ways in which learning is created and shared. (p. 42)

Organizational learning has a focus on a process of how organizational members learn at various levels and in different ways, whereas learning organization refers to a product as a representation of a desired end of organizational learning (Shwandt & Marquardt, 2000).

Definitions of Organizational Learning

Over time various definitions of organizational learning have been offered that help to better understand the process of learning in the organization (Jenlink, 1994). As pioneers in the organizational learning field, Argyris and Schon introduce the concepts of single, double, and deutero-learning (1996; Argyris, 1998). The organization able to do deutro-learning considers as a learning organization, since deutro-learning means comprehensive, systematic, and continuous learning. This type of learning may often occur every place in the learning organization ideally. Argyris and Schon explain the composite process through which and how the organization responds to external and internal influences and develops its own learning system.

Huber (1990) articulate four constructs related to organizational learning -- knowledge acquisition, information distribution, information interpretation, and organizational memory (p. 88). He views organizational learning as processes of creating, distributing, interpreting, and databasing information/knowledge in multifaceted ways. Although he spends much room to explain the elements of "know acquisition", his main point is to declare how effectively the information mechanism within the organization can be developed and work for learning.

Nonaka and Takeuchi (1995) propose a conceptual framework for managing dynamic aspects of organizational knowledge creation processes. They argue that organizational knowledge results from a continuous dialogue between tacit and explicit knowledge. According to Nonaka (1994), existing organizational learning theories are just related to "internalization", which is a process of transforming explicit knowledge into tacit knowledge. In other words, most organizational learning theories mainly focus on explaining how to obtain information/knowledge and why people take actions in certain ways. However, Nonaka and Takeuchi (1995) attempt to expand the notion of organizational learning by suggesting a holistic approach that describes a continuous and intensified interaction between different types of knowledge at individual, group and organization levels.

Schwandt and Marquardt (2000) suggest an organizational learning model based on Parsons (1960)'s general theory of action. Schwandt (1993) define organizational learning as "a system of actions, actors, symbols, and

processes that enables an organization to transform information into valued knowledge which increases its long run adaptive capacity" (p. 8). They emphasize the organization system's ability enabling adapt to its internal and external conditions. The system's ability includes a creative learning capacity through the transformation of information into knowledge and a performance-orientation.

Although the organizational learning theories reviewed here have different focuses and perspectives in explaining the concept of organizational learning, three central points can be derived. First, as a major learning source, information and knowledge should be generated, distributed, and utilized at various levels in the organization. Next, it is critical to develop comprehensive and systematic understanding of interrelations between different types of information/knowledge. Lastly, the organizational capacity or ability for learning plays an important role to manage and facilitate the organizational learning function and system.

Conditions for Organizational Learning

It is significant to identify under which conditions information and knowledge can be better created, distributed, and utilized at various levels, and to know what factors need to be considered to promote organizational learning. According to Senge (1990), in order to be a learning organization, the organization should embrace and implement five disciplines. They are systems thinking, personal master, mental models, building shared vision, and team learning. "Systems thinking" refers to a concept for understanding patterns of events and behaviors to know how to improve them. This discipline is the most emphasized one among the five disciplines, since he believes that this is an essential to integrate all disciplines into each other and to fuse them into a coherent theory and practice of the organization. Without systematic understanding, it is evident that there is no motivation as well as channel to see how the disciplines interrelate to enhance each other and to lead to organizational learning.

Watkins (1996) emphasizes organization capacity, motivation, and slack as three triggers for organizational learning. According to her, learning occurs when the organization is able to learn (capacity). Learning is critically influenced by organizational motivation at various levels (motivation). And, organizational learning takes place when financial, technological, or human reserves have spare resources to learn (slack). The organization able to learn may be externally and internally well motivated and have abundant learning resources at various levels. Marsick and Watkins (1999) address various ways to achieve organizational learning. For instance, work redesign, change of reward systems, flatter structure, and team work, etc. are suggested as means of enhancing organizational learning. Senge's view provides useful conceptual principles enabling the organization to be a learning organization and gives a thinkable room to link desirable concepts to practice. However, Marsick and Watkins offer more tangible guidelines to improve organizational conditions for learning based on their case studies and consulting experiences.

Other studies about organizational learning or learning organization show that organizational culture, leadership, formal education programs, and informal learning opportunities critically influence learning in the organization. These are in a supportive position for Senge and Watkins' perspectives overall. Regarding organizational culture, both studies of Lancaster (1998) and Argyris (1998) indicate that employees often perform unsuccessfully when threatened or embarrassed. Griego (1999) also found that rewards and recognition were essential aspects of building a learning organization. According to him, organizational members were more likely to define their workplace as a learning organization when they felt their tasks was appreciated, rewarded, not punished for mistakes. A learning oriented atmosphere or culture, which includes active organizational efforts to promote as well as allow learning with an amount of risk taking, is considered as a key influence on organizational learning. Other studies show that how critically organizational learning is associated with some factors such as leaders or peers' support (Brooks, 1992; Ellinger, Watkins, & Bostrom 1999; Griego, 1999; Holton & Kaiser, 2000), formal training and educational program (Brooks, 1992), and informal or self-directed learning (Confessore & Kops, 1998; Durr, Guglielmino, & Guglielmino, 1996; Marsick & Watkins, 1990).

In short, the main organizational learning conditions required or recommended throughout the literature to enhance organizational learning are systematic support, empowering, communication (sharing), and collaboration. The organization's leadership and culture need to be learning flavored and the organization should be able to offer various methods and channels for organizational members to be involved in making information and decision and to share their knowledge and experiences so that learning occurs across the organization.

Evaluation

In order for evaluation to enhance organizational learning, evaluation itself needs to be learning oriented and thus effectively create evaluative information. Moreover, information and knowledge generated through evaluation should be disseminated at various levels and be used for organizational learning.

Evaluative Information for Organizational Learning

Evaluation is a process of systematically assessing the operation and/or the outcomes of evaluend (a person, a thing, an idea) against a set of explicit or implicit criterions (Weiss, 1998a). Through evaluation, evaluators generate mainly evaluative information and knowledge of evaluend. Evaluative information means information and knowledge with amount of valuing and judging. In effect, evaluation does not intend only to generate evaluative information. Like Chen (1989)'s claim, in some cases, it should be a critical part of evaluation to understand a nature of a program and develop a theory of the program. Patton (1997) asserts that the most important element for the success of evaluation is to identify and meet major evaluation clients' needs. In addition, evaluative information can be generated without borrowing a form of evaluation. For instance, critical inquiries, reflection processes, and communications with other organizational members help to estimate a phenomenon and result in creating and distributing evaluative information or develop an evaluative consensus of the phenomenon (Toress, 1994 ; Preskill, 1994, 1999b).

However, evaluation is the most formal, systematic, comprehensive, and professional way to generate, distribute, and utilize evaluative information. As already mentioned in the previous section, without a process of acquiring or producing information and knowledge, organizational learning cannot take place. In terms of organizational knowledge construction and intellectual growth, evaluation can play a significant role by creating and consuming evaluative information. Evaluative information and knowledge generated and shared through evaluation should lead to program development and organizational change (Cronbach and Associates, 1980). It is obvious that evaluative information ought to be a critical learning source to foster diverse types and levels of learning and help to apply them to visible actions.

Furthermore, evaluation should embrace ample opportunities of creation, distribution, and utilization of evaluative information for evaluators and stakeholders. Preskill and Torres (2000) suggest that when organization members are involved in the evaluation process that is collaborative and guided by dialogue and reflection, learning occurs not only at the individual level but also at the team and organization level. This suggestion means in order that evaluative information can be effective within and outside of the evaluation boundary for organizational learning, the evaluation process should be learning-centered by offering diverse chances to share and develop evaluation participants' knowledge, skills, and attitudes on evaluend collectively as well as individually.

Conditions to Generate and Utilize Evaluative Information for Organizational Learning

In this section, the author discusses that under what conditions evaluative information and knowledge can be better created, distributed, and utilized to enhance organizational learning. Rogers and Hough (1995) argue that evaluation focus, methods, and management should reflect realistic assumptions about how organizations work. In a similar viewpoint to Rogers and Hough, Jenlink (1994) claims that evaluation needs to take place based on understanding how the organization learns and it should function to transform the organization to be a learning organization. Rogers and Hough (1995), and Jenlink (1994) stress that it is crucial to take into account the organization' context in terms of its learning infrastructure or "architecture", so that evaluation functions for organizational learning in considering the organization's nature and being integrated with the place where it is implemented.

The organization capacity for learning through evaluation is also critical to produce and use evaluative information as the organization learning ability is essential when organizational learning occurs (Torress, Preskill, & Pionek, 1996). It is not productive and effective to engage in evaluation processes unless the organization is ready to use evaluation results and learn from evaluation practice. In this sense, evaluators and stakeholders need to determine the extent to which the organization has the readiness for learning through evaluation.

Moreover, Preskill and Torres (1999b) investigate in which ways evaluative inquiry can contribute to the maintenance and development of organization (see also Shulha, 2000 ; Rossman & Rallis, 2000). They focus on the four elements of organizational infrastructure, which are leadership, forms of communication, systems and structures, and culture (1999a, 1999b, 2000). According to them, when evaluation is employed as a means of accumulation of information for organizational learning and development, these four organizational elements are essential to implement evaluation effectively and change the organization to be learning-focused.

Several other researchers study the factors that influence the evaluation process for organizational learning. As highlighting enlightenment of stakeholders and formative evaluation process, Owen and Lambert (1995) claim that negotiation of an evaluation plan, heightening awareness, synergetic techniques of reporting, and guidelines and ongoing personal level support are important conditions to assist with strategic decision-making committed to organizational learning and change. Shulha and Cousins (1997) also provide their insights on what affect creation as

well as utilization of evaluation information and findings. They identify predictors for evaluation use and cluster the predictors into ten categories such as: quality of evaluation implementation, credibility, relevance, communication, user involvement, potential for information processing, clients' need of information, anticipated degree of program change, perceived value of evaluation as a management tool, and contextual characteristics of the decision or policy setting (p. 196). Evaluation is required to consider more and more complicated situations and conditions to promote learning rather than simply match evaluation clients' questions with a particular method and approach. And, several articles show the ways in which evaluation can bring out successful creation and utilization of evaluative information as involving participants in the evaluation process and creating information with collaborative team working (Cousins, Donohue, & Bloom, 1996; Fetterman, 1994; Scriven, 1997).

The organizational conditions that the author mentioned in the previous organizational learning section can be applied to enhance organizational learning through evaluation. In other words, well-customized applications of systematic support, empowering, collaboration, and communication to evaluation processes help to better generate, distribute, and utilize evaluative information for organizational learning. With a broader and comprehensive concern, contextual understanding of the organization and organizational readiness for learning through evaluation are considerable elements to maximize creation, distribution, and utilization of evaluative information to lead to numerous types and levels of learning across the organization.

Contribution to HRD Research and Practice

There have been academic efforts that suggest alternative views to expand the HRD evaluation field (Holton, 1996; Kaufman & Keller, 1994), since HRD evaluation theories and practice have been pretty much dominated by Kirkpatick (1998)'s well known four level evaluation model. In this sense, the attempt to link evaluation and organizational learning can bring out beneficial possibilities to develop the existing HRD evaluation theories and practices. As a more systematic and comprehensive evaluation, learning oriented evaluation approaches give critical insights to consider evaluation as a continuous information creation and utilization process for organizational learning and development. However, there are not many practical applications and experimental evidences of how this discussion can influence action and performance improvement and make actual changes in the organization. These approaches seem to be even idealistic or conceptual (Shulha, 2000).

For further research, it is necessary to know how evaluative information should interrelate and interact with different types of information and knowledge to promote organizational learning. More empirical evidences supporting the power of evaluation to foster organizational learning need to be mixed with concrete concepts and sound principles. Additionally, the linkage between information/knowledge and action/performance through evaluation should be more defined and developed.

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The Effects of Performance Feedback upon Small Businesses: A Literature Review

Sonji Lee
Karen K. Yarrish
Patricia Bederman Miller
Keystone College

This review explores literature related to performance feedback in small businesses. It investigates the relationships and significance of performance feedback to the theory and practice of Human Resource Development (HRD). It studies research of performance feedback in larger organizations, and it identifies concerns about the lack of such research specific to small businesses. This review also exposes the need for further study of performance feedback in small businesses and the implications for HRD.

Keywords: Performance Feedback, Small Businesses, Employee Development

Businesses, regardless of size, location, or type, strive to be successful. This success depends, to a very large part, upon the degree of employee performance. Practitioners in the field of Human Resource Development (HRD) recognize the importance of employees and promote many techniques and methodologies to help assure enhanced performance by them. HRD professionals constantly study business environments in their seeking of improvements in the performance of personnel. One area of study that is of particular importance in the business arena involves the feedback of performance data between employees and their supervisors.

Problem Statement

Much research has demonstrated that there is a positive link between improved productivity and the provision of effective feedback processes. There are substantial amounts of empirical research regarding the relationship between employee feedback and performance in larger organizations, but more research should be conducted in small businesses (Westhead & Storey, 1996).

It is generally accepted that the performance feedback process and the method of communicating performance feedback are key components to effectively develop human resources. However, one of the key issues in HRD is the identification of the specific factors that influence the performance of employees. These factors include, but are not limited to, communicating; coaching; conducting career workshops and supervisory training; developing and implementing effective feedback systems, critical incident programs, and goal setting processes; and increasing personal motivation at all levels of an organization. This review explores some of these factors that affect employee performance.

Theoretical Framework

Various theories support the concepts that feedback to employees provides many benefits, including the improvement of their job performances.

Goal Setting

The establishment of performance goals is one tool in the process of effective employee performance feedback. Setting goals and tracking accomplishments towards these goals are especially effective when mutually developed and when the feedback is ongoing and it involves all parties.

Research has demonstrated that the setting of sensible, clear, short- and long-term goals is a trait or habit of successful people and organizations. These people recognize that goals are not easy to achieve and that they can fail to reach them. They also know that goals require taking risks. Seldom does anything positive occur without the taking of intelligent, well-conceived risks. Further, the risks demand sacrifices, such as time, money, reputation, or other resources. But, reaping rewards in the future typically demands making careful investments today. The fruits of setting goals and of making changes go to those who prudently take the risks and make the wise investments (Wax, 1997).

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The theory of goal setting proposes that motivation can be affected positively by utilizing goals. Employees' efforts and their focusing of attention, persistence, and selection of work strategies are all improved when well-conceived goals are properly presented and acted upon.

Locke and Latham (1984) state that goal setting is a theory "that helps to explain why other motivational techniques or approaches... work" (Locke & Latham, 1984, p. 107). According to them, goal setting is pivotal for the success of other motivational approaches, including job enrichment, organizational behavior modification, participation, and monetary incentives. These approaches are contingent upon the inclusion of goal setting for their successes (Locke & Latham, 1984).

As an example, in endeavoring to modify employee behavior, the recognition of the presence of goals helps direct employee behavior until either the goal is accomplished or else it is rejected or modified. Other researchers of motivation agree that goal setting is a well-supported theory of motivation in the workplace (Harris & DeSimone, 1994).

As a motivational tool, goal setting is extremely valuable. It achieves results, but the results are not automatic. As any tool, goal setting must be utilized properly. To be successful, goals must be set systematically and used effectively. If done so, goal setting can improve productivity, stimulate creative problem solving, and increase satisfaction, confidence, and pride (Locke & Latham, 1984).

Organizational Development

Providing feedback to employees is often prompted by the need to initiate and manage change.

Ivancevich and Matteson (1997) employ the term "organizational development" (OD) to refer to "the process of preparing for and managing change" (Ivancevich & Matteson, 1997, p.614). They further refine their definition by including long-range planning for improved operations through better utilization of the resources of the organization. They list three sub-objectives of OD: changing values or attitudes, modifying behavior, and inducing change in the structure and policy of the organization (Ivancevich & Matteson, 1997).

Organizational development has been defined by Harris and associates "as a process used to enhance the effectiveness of an organization and the well-being of its members through planned interventions" (Harris & DeSimone, 1994, p. 414). The latter part of this definition deals with intentional and planned interventions, such as introducing and implementing employee feedback mechanisms. In some instances, these are called intervention strategies. Regardless of terminology, these represent a task or a series of tasks undertaken by an organization (or a segment of an organization) where the goals are related to the improvement of the organization. Accordingly, planned intervention or intervention strategy is the primary method by which changes are made and improvements occur to the organization (Harris & DeSimone, 1994). These changes and improvements are critical components of any successful employee performance feedback system.

Beckhard offers his definition of organizational development as "...an effort [that is] planned, organization-wide, and managed from the top to increase organization effectiveness and health through planned interventions in the organization's 'processes,' using behavioral-science knowledge" (Beckhard, 1969, p 9). His definition mandates planned change through systematic diagnoses, the development of strategic plans aimed at improvements, and the mobilization of resources to implement the plan. In addition, it involves the total system. Even though a change may focus upon a subpart of an organization, the system to be changed is the total, autonomous entity that is essentially free to determine its own plans and future (Beckhard, 1969).

Leadership

Successful performance feedback is unlikely to occur without effective leadership from within the organization.

From Jack Welch, the highly respected and successful former Chairman and Chief Executive of General Electric Corporation: "I simply dislike the traits that have come to be associated with 'managing'.... The word manager has too often come to be synonymous with control – cold, uncaring, button-down, passionless. I never associate passion with the word manager, and I've never seen a leader without it" (Lowe, 1998, p. 72). "I don't run G.E. I lead G.E. (Lowe, 1998, p.74)."

In the Wall Street Journal, Welch is described as "a combination of charismatic preacher, all-knowing judge, internal ombudsman and hard driving coach" (Murray, 2000, p. A8). Welch, himself, describes a CEO as being equivalent to an orchestra leader. He continues with his principles: "Always meet targets, don't accept mediocrity, embrace change, [and] don't cling to tradition" (Murray, 2000, p. A8). His dedication to leading and to accepting change at General Electric is echoed throughout the article.

The first step in changing an organization is to scrutinize every product, service, process, market, customer, personnel training and development program, the use of all information, and every other component of the organization for the end of its useful life. (Gendron, 1999).

Culture

The culture within an organization must accept and actively endorse performance feedback as positive, enriching experiences. The alternative is resistance and ineffective change.

Culture, as found in business organizations, is established during many years and is founded upon many different stories and interpretations. As such, it is difficult to change. This resistance to change is, in fact, one of the strengths of a business culture. But, correspondingly, it also is a weakness. Culture within a business organization can be changed, but doing so demands much time and extensive, careful leadership. The people at the top of the organization must be intimately involved and must be seen as being truly committed and involved in the change. But the leadership cannot rest solely at the top; it must permeate down through all levels of the organization. Unless everyone actively advocates for a particular change, it will be ignored as a passing executive fancy (Nadler et al., 1995). In business, nothing replaces solid leadership.

Motivation

The appropriate use of feedback can yield substantially improved employee attitudes and motivation.

In studying motivation, Abraham Maslow's hierarchy of needs (Maslow, 1970), ranked the needs of people into a hierarchy, each level having to be satisfied before motivation will advance to the next level. Maslow ranked the needs in his hierarchy according to their apparent importance, placing the most important ones, the physiological needs, at the bottom. His theory holds that until these needs are satisfied, the other needs do not play a significant role in motivation. Maslow's hierarchy of needs is relevant to the study of performance feedback, because feedback from others effects the highest levels of the hierarchy of attainment satisfaction.

Hackman and Lawler (1971) found that every higher-order need they studied was positively and significantly related to the satisfaction of feedback. However, they found little agreement in the area of which jobs provided the highest level of feedback

Frederick Herzberg (1959) developed the two-factor theory of motivation where hygiene factors were found to have little influence on motivation and motivation factors were found to provide motivation. Hygiene factors include such things as supervision, working conditions, interpersonal relationships, pay, security, and company policies. His motivation factors include achievement, recognition, the work itself, responsibility, advancement, and growth. Although the results of the study remain controversial, they are important to consider when examining performance feedback systems, because they relate directly to recognition, to the possibility for increased responsibility, and to advancement and growth.

Science-Based

Rensis Likert's (1967) work centered on science-based organizational theory emerging from the research findings on management and organizational performance and the implications for labor/management relationships. Likert's theories are important to evaluate, because his research considers areas of employee involvement in business decisions and the relationship of organizations' success based on management styles.

Research Questions, Purpose, Design, and Data Collection

The purpose of this literature review is to explore the research related to performance feedback in small businesses and to consider the implications of performance feedback to HRD theory and practice. The following questions were determined:

1) What is the theoretical framework for researching performance feedback?
2) How do employees and employers benefit from performance feedback?
3) What research findings can help the HRD practitioner develop methods and programs to improve relationships using performance feedback in small businesses?

ABI Inform, Psyc Info, ERIC, and EBSCO Host were used to review the scholarly literature. The terms used to conduct the searches included Performance Feedback, Performance Evaluation, Employee Development, and Small Businesses.

Methodology

This literature review was conducted using a meta-analysis of the current research pertaining to performance feedback in small businesses.

Literature Review

Job Performance

According to a study by Minter and Thomas (2000), communication and job performance improves when employees are provided with immediate feedback and consultation. Job performance tends to be directly related to the quality of relationships between the individuals involved. Providing feedback has been identified as being essential for the success of positive working relationships among workers and managers (Deming, 1986; Likert, 1967).

Employee Importance

Arthur Anderson and National Small Business United funded a nationwide research study of small and mid-sized businesses entitled "Trends for 2000." The participating organizations were asked to name their most significant challenges to future growth and survival. The top challenge was in finding and retaining qualified workers (61%), followed by state and federal regulations (35%) and economic uncertainty (29%). The respondents then indicated the methods they used to motivate employees. The answers also included providing a team atmosphere (63%) and providing a greater sense of purpose (56%) (Arthur Anderson & National Small Business United, 2000). This survey helps validate the importance of employees and employee performance in the world of smaller businesses.

Coaching

The appraisal of performance appears to be used extensively in business to evaluate and track the outputs of employees. From "Leader to Leader", a publication of the Drucker Foundation and Jossey-Bass (1992), the Paradox of Performance Appraisal advocates that the stand-alone performance appraisal is counter-productive and should be replaced with a variety of tools and delivery systems that are more effective. One of these is coaching, which, the author contends, should replace performance ratings, except when they are required by regulation, union contract, or are particularly appropriate in individual circumstances, such as a probationary appraisal for new employees. Coaching is not easy to accomplish effectively, but, unless this method is not used, performance appraisals by themselves will fail to accomplish their intended roles (McGehee, 2001).

Encouraging and providing feedback, coaching, and communicating with employees has long been acknowledged as beneficial in providing positive working relationships with employees (Deming, 1986; Likert, 1967). Some previous studies in organizational behavior have attempted to relate, more precisely, how coaching or providing feedback affect job performance (Vroom, 1964; Ilgen, Fisher, & Taylor, 1979).

Minter and Thomas (2000) advocate that the coaching process be employed to aid in the effectiveness of performance evaluation systems. Their definition of coaching includes a deep respect for all subordinate individuals and trusting that subordinates have the abilities to solve their own problems. If subordinates truly believe that their managers are understanding and cooperative, job performance will improve.

According to Meyer, Kay, and French (1990), coaching should be a day-to-day activity and goal setting, rather than criticism, should be used to improve employee performance. They also recommend that evaluations should have but one singular purpose. Their study presents the following conclusions:

1) The evaluation process has too many intended uses and purposes.
2) These uses and purposes are in conflict with each other.
3) An evaluation discussion does little to influence future job performance.
4) Job performance improves when mutually agreed upon goals are established.

Training

The training of supervisors to properly use the performance feedback system is extremely important to the HRD practitioner. Beyond this, McGehee (2001) advises businesses to train everyone about useful feedback, to provide

open systems and structures that encourage feedback, and to use other tools to stimulate commitment to improvement efforts throughout every organization.

Watson Wyatt, a management consulting firm in New York, conducted a study of 1,020 medium to large companies in North America and studied 17 of those in depth. It found that career workshops were among those activities that led to greater productivity in employees (Comeau-Kirshner, 1998).

Participation

Other research has recommended several approaches to improve the performance feedback process. McGregor (1990) encouraged that subordinates become active in the evaluation processes by taking responsibility for developing a plan for themselves and determining their own potential. McGregor's research strongly supports the use of Management by Objectives (MBO).

Practitioners recently have published articles relating to the various issues pertaining to performance evaluation. Continuous feedback provides employers with very real and important opportunities to inform employees how successfully they are doing their jobs, feedback that employees, in general, truly desire. (Laumeyer, 1999). Pardue (1999) urges the development and use of performance evaluation systems that are truly participative in nature. Pardue (1999) reports that well documented performance appraisal forms help defend various employment decisions. Longer-term performance diaries have been recommended as an effective aid to performance raters for several decades (Bernardin & Walter, 1977; DeNisi, Robbins, & Cafferty, 1989).

Levinson (1990) recommends from his research that a detailed critical incident process be used to carefully document all incidents of behavior, both good and bad, and done as they occur. These incidents should be discussed with employees at the time of the occurrence in order to provide immediate feedback. This will help the employees to correct small problems before they develop and expand into larger ones. Levenson purports that these documented data then can be used during a subsequent review time to substantiate the details.

Needs

Levinson (1990) also suggests that the psychological needs of individuals be taken into consideration during the performance evaluation process. As an example, the supervisor should not only be asking questions pertaining to the individuals' personal life goals but should also be inquiring as to what makes them feel good about themselves. Levenson's premise for recommending this is that each person is working towards the attainment of his or her individual psychological needs. Therefore, the highest level of individual motivation will arise when a parallel relationship exists between the needs of an individual and those required in the job and by the employing organization.

Results and Findings

The survival of any business, large or small, depends upon the effective performance of tasks by its employees. Without feedback, however, employees usually are unable to maintain or improve the desired quality and quantity of their work.

As a result of the comprehensive literature review, it is evident that there is a substantial lack of research data on performance feedback that pertains specifically to small businesses.

All research studies that were explored in this review unanimously endorse the validity of performance feedback processes when designed and executed properly. These studies indicate that the benefits accrue to both employers and employees. However, given the scant amount of research on performance feedback in the small business environment, the assumption that these benefits apply to this group may not be accurate.

Conclusions and Recommendations

"Small businesses (firms with fewer than 500 employees) employ 53 percent of the private, non-farm work force, contribute 47 percent of all sales in the country, and are responsible for 51 percent of the private gross domestic product" (National Small Business United, 1999).

Small businesses contribute greatly to the economy of our country and contribute trillions of dollars worth of economic power annually to the global market. American small business ranks third in the world of economic powers, behind only that of the U.S. as a whole and that of Japan. The number of these operations is rapidly increasing by about three-quarters of million each year. Most of the new employment in the private sector is from

small businesses. The popularly expressed failure rate of small businesses is a myth; in fact, nearly 70 percent of all firms beginning in 1985 were still in operation after 10 years (Megginson, Byrd, & Meggison, 2000).

A recent survey by Arthur Anderson and National Small Business United of small and mid-sized businesses disclosed that 61 percent of employers expressed that finding and retaining qualified workers was their greatest challenge to growth and survival (Arthur Anderson, 2000).

The value of effective performance feedback systems is well accepted in HRD and large businesses. It has been illustrated that job performance improves when attention is given to employees through feedback, consultation, and coaching. However, the benefits of such feedback have not been evident in the realm of small businesses. Small businesses may not reap the same benefits as do their larger counterparts, mainly due to lack of money, staffing, and time to conduct effective performance feedback. A real need exists for additional study to expand the knowledge of performance feedback, specifically as it relates to the small business environment.

Implications for HRD

The value of effective performance feedback systems is well accepted in the HRD and business worlds. HRD practitioners often work in a consulting role to small businesses. For HRD professionals to effectively develop and assess feedback processes for small businesses, they first must have appropriate background information related to performance feedback. However, the scant amount of research regarding performance feedback processes in small businesses tends to limit the effectiveness of the HRD consulting efforts to smaller business entities. The purpose of this review is to demonstrate the opportunities and needs for further research of performance feedback in small businesses.

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College Choice: The State of Marketing and Effective Student Recruitment Strategies

Fredrick Muyia Nafukho
University of Arkansas

Michael F. Burnett
Louisiana State University

The study examined recruitment strategies employed by Louisiana State University admissions offices and the College of Agriculture. Student financial aid, geographic location, mail pieces sent to prospective students, campus visitation programs and outreach programs were the most efficient factors in student recruitment. These factors had positive correlations with enrollment and were statistically significant at .05 level. HRD researchers could use the findings to save dollars in recruiting students who meet the mission of their programs.

Keywords: Marketing Education, College Choice, Student Recruitment

During the past 350 years, colleges and universities in the US have grown to over 3,100 baccalaureate-granting institutions, each with its own unique purpose, history, student body and faculty (Cerny, 1992, p.1). Prior to the mid - 1960's, student enrollment grew without much recruitment efforts from higher education institutions (Hossler, 1986 and Sevier, 1989). The higher education industry witnessed increased student enrollment after World War II until 1980. This growth was due to the baby boom generation (Boyer, 1987). For the period ranging from 1975 to 1985, demographers projected a steady decline in the number of traditional college age students. This decline led to the enrollment crisis of the 1980's (Novak and Weiss, 1985). In response to this crisis, in December 1983, the College Board and Educational Testing Service conducted a study to better understand the enrollment practices of colleges across the country. College admissions officers' responses showed that the most frequently mentioned problems were: too few students to apply, too few accepted students enroll and too many students drop out (Novak and Weiss, 1985, p.2). For admission offices to be successful in their recruitment efforts today and in the future, they must use a growing knowledge base to guide their recruitment programs. There is need for the analysis of the huge student databases in order to understand student characteristics. The HRD professionals teaching in the universities should provide customer-capital services to their departments and colleges by helping in designing effective marketing strategies (Edvinsson and Malone, 1996). As noted, the business success of colleges and programs offered will depend upon "selling what the customer (student) wants to buy" (Rothwell &Sredl, 1992, p. 135; Albrecht & Bradford, 1990, p. 1). HRD professionals as facilitators of learning, have an obligation to students, the colleges they serve, and themselves to help their customers avoid making costly purchases that do not help improve organizational, group or individual effectiveness in terms of higher completion rates (Rothwell & Sredl, 1992).

Problem Statement and Purpose

The concern for having the optimal number of students is now more pronounced than it was in the 1980's and 1990's. Faced with competition and limited financial resources, colleges are using several recruitment tactics to attract students. But to attract the required number of students and save dollars allocated to student recruitment, efficient recruitment strategies must be employed. Every college must develop its own unique selling points. An understanding of student college choice decision-making is therefore critical in designing of unique selling points. This understanding is in line with investment in customer-capital. While designing recruitment strategies at the college level, it is important to understand what motivates students to choose a given college. On the lack of data about student characteristics in many colleges, Brodigan and Dehne (1997) noted: "We find it strange how little most colleges know about the opinions, expectations, and satisfaction of current students" (p.18). Human Resource Development professionals as marketers should use their marketing skills to research into the issue of college and program choice to develop innovative programs. The main purpose of this study was to describe the fall 1997 prospective freshmen in the Louisiana State University College of Agriculture based on the main recruitment

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strategies employed by Louisiana State University's admissions offices and the College of Agriculture. The study also aimed at identifying the recruitment factors that had the highest association with college enrollment status.

Theoretical Framework

The language of marketing was introduced into higher education admissions no more than a decade ago, but colleges and universities have applied basic marketing techniques throughout their history to curricular planning and assessment (Ihlanfeldt, 1980). Marketing as applied to higher education is a concept that allows college decision makers to think systematically and sequentially about the mission of the organization, the services it offers, the markets it currently serves, and the extent to which these same markets and possibly new ones may demand its services in the future (Ihlanfeldt, 1980, p.13). Higher education and HRD practitioners in particular, deal with an intangible product that is more of a service than a commodity (Salee and Johnson, 1994). HRD researchers therefore need to be more careful when they apply marketing concepts to education. There is always some difficulty when it comes to quantifying intangible services such as education. Marketing can, however, enable college management and HRD program designers to determine whether their missions match student interests. Knight (1981) suggests that marketing is consistent with many ideas in higher education when it is understood and applied appropriately. In the 1970's and 1980's when the reality of declining students could no longer be denied, more astute college administrators recognized that marketing meant more than selling. It involved strategic decisions in other areas as well and the shift toward adopting more customer-oriented perspective began to surface in many institutions (Losher and Miller, 1983, p.9).

Kotler (1975, p.5) defines marketing as the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchange of values with target markets for the purpose of achieving organizational objectives. It relies heavily on designing the organization's offering in terms of the target market's needs and desires and on using effective pricing, communication and distribution to inform, motivate and service the markets. In higher education, Johnson (1979) observes that marketing tries to give first consideration to the student and societal needs. Losher and Miller (1983) note that one of the basic assumptions of an effective marketing program is that an institution is committed to the philosophy that colleges are in the people business and inflexible decision makers must yield to the needs of the consumers, the students, if they want to recruit them. Although marketing in higher education is mainly associated with promotion and recruitment, Johnson (1979), emphasizes that the scope of an effective marketing program should be more comprehensive and must include research, planning, communication and evaluation. Cox (1980) and Lovelock (1980) argue that marketing should be looked at as a total institutional concept, which integrates trustees, faculty, administration and staff efforts into a cohesive team approach. Rothwell and Sredl (1992) note that marketing is important to HRD field since people (students) can't benefit from products or services that are unsuitable or those they know nothing about. Therefore, when colleges market their products and services, they must tailor planned learning experiences to suit the needs of the learners they serve and to alert learners to products and services that are already offered (p. 136). Walton (1999) observes that HRD professionals as marketers should help enrollment admission officers by selling training and development view points, learning packages, programs and services to target audiences outside universities.

Methodology and Research Design

The Target Population

The target population for this study was defined as all prospective freshmen that were recruited to attend the College of Agriculture at LSU in the fall of 1997. The accessible population consisted of fall 1997 prospective freshmen who resided on both the undergraduate and college databases. The university undergraduate data base houses all undergraduate admissions contacts with students and is based upon a coding system with different contacts represented by a series of numbers corresponding to specific recruitment contact such as letters, telephone calls and events. The College of Agriculture data base equally houses all undergraduate admissions contacts with students and is based upon a coding system with different contacts such as: TAger Day, telephone, WWW, and attendance at 4-H and FFA functions.

The accessible population from which the sample was drawn consisted of students who resided on both the university admissions database and the College of Agriculture database. The minimum required sample size for the study was determined using Cochran's (1953) sample size formula for categorical data with an a priori established alpha level of .05, an acceptable margin error set at 5% and the estimate of the variance in the population set at .25 (the most conservative estimate of variance calculated as p times q). A comparison of 1,130 students who resided

on the College of Agriculture's 1997 high school senior data base, with the university undergraduate recruitment data base gave a total of 226 students. This formed the accessible population of the study. From the accessible population, the actual sample size was determined to be 143. Since complete data on all the variables for all the subjects in the accessible population were obtained, all 226 subjects in the accessible population were included in the study instead of the 143 subjects.

Instrumentation and Data Collection

A computerized recording form was the main instrument used for data collection in this study. Specific variables from both the university undergraduate admissions database and the College of Agriculture admissions database were selected. The variables selected were those that addressed the objectives of the study. A file was established into which the variables were systematically copied. Data was collected during the spring and summer semesters of 1998 by copying over 70 variables of interest from the university's undergraduate admissions data base and another 27 variables from the College of Agriculture's admissions data base. Each student was drawn using his or her social security number.

Data Analysis

Data collected in this study was analyzed using the following procedures for each respective study objective. Objective one was to describe the Fall 1997 prospective freshmen in the Louisiana State University College of Agriculture based on the main recruitment strategies emp loyed by Louisiana State University's admissions offices and the College of Agriculture. Since this objective was descriptive in nature it was analyzed using descriptive statistics. The variables that were measured on a categorical (nominal and ordinal) levels were summarized using frequencies and percentages in categories. Variables that were measured on interval or higher scale of measurement were summarized using means and standard deviations. The second objective aimed at identifying the recruitment strategy that had the highest association with college of Agriculture enrollment status among students recruited for admission to the college. This objective was accomplished by using zero order correlation coefficients. Before the correlations were determined, the researchers checked for the presence of multicollinearity by regressing each independent variable on all the other independent variables. This technique takes into account the relationship of each independent variable with all the other independent variables and a combination of other independent variables (Lewis-Beck, 1980). The variables that had high R^2 were removed from the analysis. The dependent variable enrollment was correlated with independent variables studied.

Results and Findings

The study was designed to answer one major question: Which recruitment strategy had the highest association with student enrollment during the year of investigation. There are numerous points in the recruitment of a student to attend the university that are either a mail strategy in and of themselves or cause the generation of a piece of mail to the student as a follow-up of the activity. Examples of these include invitations to attend selected activities, follow-up notes thanking the student for their participation in selected activities, and letters acknowledging receipt of pieces of information such as ACT scores, application, etc. The total number of mail pieces sent to prospective students by the university admissions office and the College of Agriculture ranged from a low of 2 to a high of 15. The average number of Mail pieces sent was 7.48 (SD = 2.498) for students in the study. The largest group of students (n = 35, 16%) in the study received a combined total of 7 pieces of mail from the university admissions office and the College of Agriculture. This was followed by another 30 (13%) who received six pieces of mail. The second recruitment strategy examined was financial assistance. Of the students who received scholarships, the highest number of scholarships received by any one student was (n = 7, 4.5%), while 33 (21%) of the students received only one scholarship. Out of 226 subjects studied, 154 (68%) received scholarships. While the remaining 72 (32%) of the students in the accessible population never received any form of financial assistance. To further examine financial aid as a factor in recruitment, the total dollar amount of the financial assistance awarded to the subjects in the study was measured. The students who received scholarships, the largest group (n = 24, 16%) was in the amount range from $ 9000 to $ 9999. The next largest group of students was in the $ 2000 to $ 2999 range of scholarship amounts (n = 21, 145). The mean amount of scholarship awarded was $ 6263.18.

The third recruitment strategy examined was campus visitation programs. This was operationally defined as Preview LSU, Tiger Day, TAger Day, and Campus Tour. TAger Day is the College of Agriculture recruitment program in which high school seniors and juniors are invited to attend the College of Agriculture open house in the

spring of the year. Tiger Day, the largest Louisiana State University recruitment program is administered by the university admissions office. Approximately 30,000 high school seniors and juniors are invited to attend the Campus Open house in the fall of every year. Preview LSU is a program in which high achieving students are invited to participate in a day and a half program on the LSU campus. The program aims at giving students an in depth look at the program opportunities offered at Louisiana State University (Harris, 1997). The Campus Tour recruitment activity involves the Monday through Friday Admissions Session and student guided tour of the campus. Forms for application are readily accessible from the admissions office and LSU web page for students to complete and mail back. As a recruitment strategy, LSU admissions office encourages visits from students and parents at all occasions. Table 1 shows that 162 (72%) of the students in the study were invited to attend Tiger Day during their senior year and 38 (17%) of the them attended. It is shown further that 60 (27%) of the students were invited to attend Tiger Day in their junior year and 5 (2%) of the students came to the event. For the TAger Day program, which is a similar activity just for the College of Agriculture, 48 (21%) of the students participated in the program.

Table 1. *Invitation to and Attendance at Campus Visitation Programs for Prospective Freshmen*

Program	Invited	Attended	Not Attended
Tiger Day (Sr.)	162 (72%)	38 (17%)	188 (83%)
Tiger Day (Jr.)	60 (27%)	5 (2%)	221 (98%)
TAger Day	NA	7 (1%)	223 (99%)
Tour	NA	48 (21%)	178 (79%)
Preview LSU	26 (12)	7 (3%)	219 (97%)

In the case of the Preview LSU program, 26 (12%) of the subjects were invited to attend the program and 7 (3%) actually participated in the program. Finally, 48 (21%) of the subjects participated in a campus tour while the remaining 178 (79%) of the Fall 1997 prospective freshmen recruited to attend the College of Agriculture did not participate in a formal guided tour of the LSU campus. The fourth recruitment strategy examined was Outreach programs by both the university admissions office and the College of Agriculture. As seen in Table 2, the highest outreach program attended was the Explore program in the student's senior year with 112 (50%) invited and 20 (9%) attending the program. This was followed by the Explore LSU Program in the students' junior year of High School with 41 (18%) invited and only 6 (3%) attending the program.

Table 2. *Invitation to and Attendance at Outreach Programs for Prospective Freshmen*

Program	Invited	Not Invited	Attended	Not Attended
Explore LSU (Sr.)	112 (50%)	114 (50%)	20 (9%)	206 (91%)
Explore LSU (Jr.)	41 (18%)	185 (82%)	6 (3%)	220 (97%)
Explore LSU	8 (4%)	218 (96%)	4 (3%)	222 (98%)

In the case of College of Agriculture outreach programs, data in Table 3 show the highest event attended was Explore College of Agriculture program with 17 (8%) of the subjects attending. College explore programs included explore programs held in Texas, Alexandria, Shreveport, Slidell, Houma and De Ridder. The College of Agriculture recruitment personnel attend these explore events and initiate contacts with the prospective students for the college. The other important outreach recruitment activities carried out by the College of Agriculture included Local - 4H. Eight (4%) of the students were initially contacted during the 4-H outreach functions, five (2%) were contacted by the College of Agriculture staff during the State FFA judging competition and another 5 (2%) of the prospective students were contacted by the college staff during Local FFA judging competition. Telecounseling was the other recruitment strategy examined. This strategy involves the prospective student receiving a telephone call from an LSU Ambassador and or College of Agriculture recruitment personnel. All students who receive a Tiger Call also receive a piece of correspondence, even if no direct contact is made.

Table 3. *Attendance at Outreach Programs for Prospective Freshmen*

	Attended	Not Attended
State FFA judge	5 (2%)	221 (98%)
Local - 4H	8 (4%)	218 (97%)
Local FFA	5 (2%)	221 (98%)
Explore	17 (8%)	221 (98%)

Data in Table 4 show that 104 (46%) of the students were contacted on the first call. Another 30 (13%) received the message left with a member of the family and returned the call. Twenty-eight (12%) of the students were called and a message was left, but they never responded to the message left with a member of the family. Table 4 shows further that 64 (28%) of the subjects were not contacted by telephone by either the university admissions office or the College of Agriculture recruitment personnel.

Table 4. *Tiger Calls Made to Students and the Response Reported*

Tiger Call Made	N	%
Student conducted on first call	104	46.0
Message left and student returned the call	30	13.3
Never answered message	28	12.4
Never Received call	64	28.3
Total	226	100.0

The final recruitment strategy examined in the study was the use of the Internet. Louisiana State University has established a web page that contains programs offered by colleges and departments. Application procedures are also provided on the LSU home page. A prospective student interested in a particular program can initiate the first contact with the university admissions office and the College of Agriculture using the Internet. This is a very new and recent recruitment strategy. Only 2 (1%) of the students used the Internet to initiate their first contact with the College of Agriculture. The remaining 224 (99%) of the subjects in the study did not employ this recruitment strategy.

The recruitment strategy that had the highest association with the dependent variable enrollment status among the students recruited to attend the College of Agriculture during the 1997 - 98 academic year, was considered as the strategy that had the highest zero order correlation with the dependent variable, enrollment status. The most appropriate correlation coefficient was established between the dependent variable enrollment status, and each recruitment strategy. Data in Table 5 show that the independent variable, the total dollar amount awarded to the students from the various financial aid sources, had the highest correlation with enrollment ($r = .48$; $n = 226$; $p = <.001$). The variable SCHOLAR (whether the student received a scholarship or not) had the second highest correlation with enrollment ($r = .46$; $n = 226$; $p = <.001$). In addition, the variables that had positive significant correlations with enrollment included STATE (defined as whether the student recruited was from within the state of Louisiana or not), $r = .40$; ($n = 226$; $p = <.001$) and PLUS (defined as whether the student received a parent loan for undergraduate student award or not) was also significant with $r = .31$; ($n = 226$; $p = <.001$). The other independent variables that had positive and significant correlations with the dependent variable are whether or not the student received a departmental scholarship, whether or not the student received an award from any private sources, whether or not the student received an unsubsidized Stafford loan, and whether or not the student was awarded a Federal Pell grant. The entire results of the correlations between the independent variables and the dependent variable are presented in Table 5.

Table 5. *The Correlation Between Recruitment Strategies and Enrollment (N=226)*

Variable	n	r	p
Dollar amount awarded in scholarship	226	.484	<.001
Scholarship received	226	.458	<.001
Whether or not student came from Louisiana State	226	.399	<.001
Parent Loan for Undergraduate students	226	.313	<.001
Departmental Scholarship	226	.297	<.001
Private or outside award	226	.268	<.001
Unsubsidized Stafford loan	226	.262	<.001
Federal Pell Grant	226	.253	<.001
Tuition Assistance Program	226	.245	<.001
Subsidized Stafford Loan	226	.244	<.001
Tiger day invitation for senior high school students	226	.239	<.001
Packet sent to student on receiving ACT scores	226	.220	<.001
Student received Rockefeller Scholarship	226	.153	.021
High school activity award	226	.153	.021
College work study program	226	.148	.026
Packet sent to o n receiving SAT scores	226	-.141	.034
Student participated in campus tour session	226	.141	.035
Tiger day invitation sent of junior high school students	226	.131	.049
State Vocational rehabilitation scholarship	226	.127	.057

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Invitation sent to seniors students to attend Explore LSU	226	.125	.061
Letter sent to seniors after attending Tiger day	226	.120	.073
Attendance of College of Agriculture Explore programs	226	-.117	.080
Came to campus for a visit	226	.110	.099
Received Chancellor's student aid	226	.105	.115
Invited to a reception for scholarship eligible students	226	.063	.346
Attended a reception for scholarship eligible students	226	.062	.353
Received a call from LSU ambassador	226	-.057	.395
Received Tuition honors scholarship (among top 5 %)	226	.056	.405
Tuition, room or board award	226	.052	.433
Number of mail pieces received from College	226	.048	.478
Invited to College open day	226	.019	.775
Invited to LSU on campus Explore	226	.017	.805
Met college recruiter during FFA judging competition	226	.015	.823
Number of mail pieces received by a student from admissions	226	-.011	.871
Invitation sent to students to attend LSU Preview program	226	-.008	.910
Received recruiting brochure from college of Agriculture	226	-.008	.910
Packet sent to students list purchased from ACT Inc.	226	.002	.978
Tiger call message left for the prospective student	226	.002	.971
Student attended State Literary Rally	226	.001	.985

Conclusion and Recommendations

Financial Aid is an important recruitment strategy and has an effect on the enrollment status of students. This conclusion is based on the findings that the dollar amount awarded to the students in this study had the single highest correlation of any of the variables tested($r = .484$, $n = 226$, $p < .001$). Also, the variable whether or not the student received a scholarship, which is still part of financial assistance had a substantial correlation with enrollment status ($r = .458$, $n = 226$, $p < .001$). This conclusion is also supported by earlier research which showed that financial aid has in the past been used by colleges as one of the most effective recruitment strategies (Harris, 1997; McPheson and Schapiro, 1995; Hossler, 1994; Rosiak, 1987; Swann, 1987).

The researchers recommend that directors of financial aid and enrollment management professionals who have the responsibility for setting scholarship policy should carefully examine financial award process to ensure financial assistance goes to the students who need this assistance. As shown in this study, offering of a complete scholarship to a student or several awards to one individual student increases the total dollar amount which in turn influences the student's decision to enroll in the college. The highest number of students in the study who received financial aid fell into the range of $ 9000 to $ 9999. As established earlier by Harris (1997), the amount of monies awarded in the scholarship offer was the best method to recruit high ability students. The mean ACT score for the subjects in this study was 24.99 implying that the college admitted high ability students. To better understand how the dollar amount awarded to students influences their decision to attend a given college, the researchers recommend the need to carry out a qualitative study of students recruited to attend the college and awarded financial assistance. This will provide individual information on the role financial aid played in influencing student decisions to enroll in the college. The geographic location of the student is an important factor in recruitment. Whether or not the student came from the state of Louisiana had an effect on the enrollment status of a student. This is based on the findings that the variable state had a positive and statistically significant correlation with enrollment ($r = .399$, $n = 226$; $p < .001$). Since the variable state (student coming from within state) was highly significant in this study, the researcher recommends a qualitative study that will focus on the reasons why students from within the state of Louisiana choose to attend LSU.

The total number of mail pieces sent by the college to prospective students is an important recruitment strategy and has an effect on the enrollment status of a student at the college level. This conclusion is supported by earlier research, which established that direct mail is one of the most effective recruitment strategies (Affleck, 1991; Sanders and Perfetto, 1991; Wheatley, 1987; Rosiak, 1987; Lewis, 1985; Smith, 1985; Porter, 1986). Harris (1997) in a more recent study at LSU established that mail was an important recruitment strategy at the university level. In this study however, mail sent by university admissions office to students recruited by the College of Agriculture was not found to be a significant factor. This could be explained by the fact that prospective students who establish initial contacts with the college may have more interest in contacts from the college (especially dean's office) instead of the general mail from the university admissions office.

Campus visitation programs specially designed for prospective freshmen by the College of Agriculture and the university admissions office are essential recruitment activities. Despite the fact that attendance to campus visitation programs had lower percentages, the variables, Tiger Day senior (17%), Tiger Day juniors (2%), TAger Day (1%),

Tour (21%), and Preview LSU (3%). The variables Tour, Tiger Day senior attendance, TAger Day and Preview LSU entered the comprehensive, comprehensive recruitment and the most efficient recruitment models. Recruitment via the Internet is equally a new phenomenon in the field of college recruitment. This variable tends to be impersonal as there is no direct personal contact with the prospective student (Stoner, 1996). The researchers however recommend for further study that will explore the effectiveness of using Telecounseling and the Internet in recruiting students.

Implications for the Field of HRD

This study provides useful information regarding effective strategies for recruiting college students. HRD professionals as marketers should find the results of this study useful in identifying the needs of HRD's chief "customers"- that is learners. The marketing framework employed in this study should help in identifying and promoting planned learning experiences as a way of recruiting students who meet the mission of various colleges and HRD programs countrywide. Designing efficient recruitment strategies is one important way of understanding the needs of the learners during the recruitment stage. This study in particular, shows the most effective recruitment strategies employed by Louisiana Sate University admissions' offices and College of Agriculture. HRD researchers interested in marketing their programs and recruiting students who meet the mission of their programs should find the results of this study useful.

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The Perceived Influence of Industry-Sponsored Credentials on Recruitment and Training in the Information Technology Industry

Kenneth R. Bartlett
University of Minnesota

T. Marshall Egan
Texas A&M University

Minu Ipe
Sujin Kim
Yuwen Liu
University of Minnesota

As the interest in industry-sponsored credentials grows, so do questions on the influence of these credentials on both the employee and employing organization. Perceptions of the influence of industry-sponsored credentials in the information technology industry are examined in this study of senior human resource executives and their IT employees from a sample of U.S. large firms. Further analysis examined differences in perceptions of the influence of credentials on recruitment and training between IT employees with and without industry-sponsored credentials.

Keywords: Information Technology, Recruitment, Training.

The increasing recognition that information technology (IT) represents the most significant enabling technology for organizations has considerable implications for human resource development (HRD). According to a report from the U.S. Department of Commerce (1999), IT allows for better management of information and innovation; has resulted in improved productivity and quality of life; and has improved the national standard of living. The creation, application, and use of information technology has spilled over into every sector of the economy, from the traditional IT industry, to manufacturing and services, transportation, healthcare, education, and government. From an HRD perspective, it is noted that IT changes not only the workplace but also the learning that is required to maximize human performance and corporate success (Marquardt & Kearsley, 2000).

There is little doubt that the IT industry has risen to prominence and is playing a dramatic and significant role in the U.S. economy. The use of IT has not only led to increased efficiency and productivity, but it has also resulted in new business models and new approaches to the organization and completion of work. The demand for skilled IT employees remains high despite the recent slowdown in the economy and the demise of many dot.com firms and other Internet related businesses (Hilton, 2001). A recently published Information Technology Association of America (ITAA) study (2001) stated that although demand for IT workers is down 44% from forecasts just a year earlier, estimates are that U.S. companies plan to hire an additional 900,000 IT workers during 2001.

At the same time that tremendous expansion in IT career opportunities has occurred, and is projected to continue, the pace at which new two-and four-year postsecondary graduates in computer science, engineering, and mathematics entering the workforce has shown no signs of increase and may even have slowed down. The situation is so serious that the U.S. Department of Commerce (1997) issued a warning that the shortage of IT workers could undermine U.S. innovation, productivity, and competitiveness in world markets due to factors such as the inhibition of cutting-edge technology, constrained industry growth, loss of trade, and increased labor costs. As a result of projected IT workforce shortages the IT industry, and firms dependent on IT workers, are examining a variety of strategies related to recruitment and retention. Recruiters are looking beyond the traditional pool of graduates for new workers in addition to seeking ways to attract and recruit employees from the non-IT related incumbent workforce.

Employers have tried to fulfill their need for IT resources by aggressive recruiting (including offering very attractive salary and benefit packages) from the domestic market, training and skill updating of their existing IT workforce, and hiring immigrant workers with IT skills through the H1B visa program. However, the gap between supply and demand remains. As a result, focus on alternative educational pathways to provide IT workers with the needed key technical skill sets has been renewed (Adelman, 2000). In this scenario, credentials offered by industry-based groups are providing organizations with qualifications on which to make decisions related to recruiting and

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training of IT employees.

Problem Statement

The rise in the number of credential and certification programs is one the most significant trends related to education for IT careers. A credential is defined as "a designation, mark, or stamp given to a person, organization, or program that has satisfied a set of standards" (Hale, 2000, p. xx). A certification is a form of credential awarded by an employer, a vendor, or an association or independent agency requiring passage of an exam benchmarked to predetermined occupational or professional standards that may or may not also require prior education and experience (Carnevale & Desrochers, 2001; Hale 2000).

Industry-sponsored credentials and certifications were developed to update the skills of well-trained workers and to address the shortage of qualified employees within the IT industry. IT industry-sponsored credentials (such as CompTIA A+, Microsoft Certified Systems Engineer, Certified Novell Engineer, Sun Certified Programmer for the Java Platform) have the advantage of enabling people to quickly learn a clearly defined set of competencies. Upon completion of a credential, many employees find that current market demand provides them multiple hiring opportunities. Yet, the influence of IT credentials in recruitment and training is largely unknown. This study addresses this issue.

Theoretical Framework

This section reviews literature in the different fields that contribute to the framing of this study. The aim of this review is to highlight issues and research findings of significance to the current study rather than provide an exhaustive review of the literature. Much existing economic and education theory and research rests on the role and impact of qualifications and credentials as the key to workplace success and higher levels of earnings. As Wonacott (2000) detailed, the most prominent credentials for explaining differences in workplace attainment are the traditional educational credentials of diplomas and degrees. However, a new trend is emerging raising many questions about the current and future role of both these traditional credentials and the more recently developed industry-sponsored credentials and certification.

Cervero (2001) recently listed the rise in credential programs, and their frequent connection to regulation of professional practice, as one of the top five trends in continuing professional education. Bassi (1999) suggested that organizations offering for-profit training and credentials are expanding to fill the growing need for highly skilled workers in corporate America. Argentsinger (2001) described credentials as being faster, cheaper, and more focused than traditional college credentials, resulting in industry-sponsored credentials becoming the continuing-education currency of choice. This trend has produced a delivery system for credentials and certificates that is "a labyrinth of for-profit and not-for-profit postsecondary institutions, professional, industry, and trade associations, commercial vendors, and government" (Carnevale & Desrochers, 2001, p. 26).

Perhaps no other industry has experienced the growth in credentials to the extent of the IT industry which now offers well over 100 industry-sponsored credentials (www.certmag.com). It is important to recognize that credentials extend far beyond the companies and organizations that create and maintain credential programs. Tittel (2001) described the size of the billion dollar per year "certification aftermarket" of testing centers, IT training companies, publishing companies, practice test vendors, credential authorities, online mentoring, and resource providers. IT credential programs appear to achieve multiple aims for both individuals and organizations. Most importantly credential programs provide employees, either looking to enter or to advance within the IT industry, with focused training (Adelman, 2000). IT credentials and certificates also enable people to learn a clearly defined set of competencies that are frequently tied to hiring opportunities (Carnevale & Desrochers, 2001). However, not just entry-level employees benefit from industry-sponsored IT credentials. Firms frequently tie promotion to the receipt of advanced level credentials involving job-related knowledge and experience. At the organizational level, industry-sponsored credentials are believed to play an important role in the determination of desired knowledge, skills, and abilities for IT employees. Requiring credentials and certifications specifically related to a job is said to make the recruitment process more efficient, and aid in assessments of applicant's ability and influence decisions related to participation in firm-sponsored training (Ray & McCoy, 2000).

Regardless of the disagreement in the aims of IT credentials, a situation has emerged in which IT professionals, human resource (HR) executives, and trainers struggle with credentials while "the certification frenzy swirls about them" (Ray & McCoy, 2000, p.1). The recent development and rise in status of IT industry-sponsored credentials raises many questions in terms of their role as signaling devices for hiring, promotion, training and career development. Furthermore, it is not known what the value and impact of IT industry-sponsored credentials is for

both individuals and organizations. Despite the importance of recruitment and training to the IT profession, comparatively little research has been conducted in this area (Agarwal & Ferratt, 1998).

The perceived influence of different types of educational qualifications is an issue of great concern within the IT industry in light of the proliferation of industry-sponsored credential and certification programs. Despite potential reliability concerns, various IT-related firms highlight their own research into organizational results when comparing certified IT employees to those without credentials (IBM, 1999; IDC Incorporated, 1999; Lewis, & Sappington, 1993; The Computing Technology Industry Association, 2001). These studies suggest that managers view employees with credentials to possess greater knowledge, to be more productive, to provide improved customer support, and to have higher commitment while concurrently requiring less training investment (IDC, Incorporated, 1999). A study of IBM certification found positive influences on measures of business results such as increased revenue, employee productivity, and customer satisfaction from employees who hold IBM credentials (htttp://www1.ibm.com/certify/program/roistudy.shtm). An alternative view would support that a college qualification would be more highly valued than a credential offered by industry with existing research suggesting that a college baccalaureate degree is the most marketable qualification (Brown, 1999).

Existing theory provides a strong conceptual framework for examining the role of industry-sponsored credentials and certification in recruitment and training for IT workers. In terms of recruitment, qualifications and credentials have long served as signals for organizations. Signaling theory (Spence, 1972) suggests that because organizations have incomplete information regarding the knowledge, skills, and abilities of applicants, inferences are made by employers through the interpretation of qualifications and credentials presented by applicants (Barber, 1998). Prospective employees communicate to organizations, in part, by utilizing credentials as signals of their expertise and potential. This study examined the perceived influence of different qualifications and credentials on the recruitment and training process from both the employer and employee perspective. The value that organizations place on different qualifications can also act as a signal to applicants. For example, signaling theory suggests that organizational preferences for either IT industry-sponsored credentials or more traditional two or four-year college qualifications provide applicants with information about what it would be like to be a member of that organization and what type of skills and knowledge they value (Greening & Turban, 2000). Drawing on this theory, the current study examined the perceptions of HR executives and IT employees on the differences between industry-sponsored credentials and traditional college qualifications on influencing recruitment decisions for IT employees.

In addition to the signaling role for entry into an organization, qualifications and credentials also have served as a foundation for advancement and employee development decisions. Turner (1960) suggested that career mobility operates under two opposing systems—contest-mobility and sponsored-mobility. Under the sponsored-mobility system, select employees receive high levels of support, guidance, training, and mentorship from supervisors, whereas, the contest-mobility system implies an open and fair contest for each promotion decision. The contest-mobility system assumes that employee success is the result of level of effort, abilities, as well as the level of education and training. The current study adopted the contest-mobility approach in examining the perceptions of HR executives and IT employees towards training. Based on the contest-mobility approach, it was assumed a priori that these two employment categories would have different perceptions towards the influence of industry-sponsored credentials in ongoing training for IT employees. More specifically, it was thought that both HR executives and IT employees would perceive different benefits of having industry-sponsored credentials as compared to a college degree in terms of how this would influence their attitudes towards training. Given the lack of existing research the nature of this difference was not hypothesized and an exploratory approach was taken to this research question.

Research Questions

The core research question guiding this study was: what are the perceptions of HR executives and affiliated IT employees regarding the influence of IT industry-sponsored credentials on recruitment and training? This broad question was refined into three research questions.

Research Question 1: Do differences exist in the perceptions of HR executives as compared to IT employees on the benefits of industry-sponsored credentials on recruitment?

Research Question 2: Do differences exist in the perceptions of HR executives as compared to IT employees on the benefits of industry-sponsored credentials on training?

Research Question 3: Do differences exist in the perceptions of the role of industry-sponsored credentials on recruitment and training between IT employees with industry-sponsored credentials as compared to IT employees without industry-sponsored credentials?

Method

This study collected data from HR executives and incumbent IT workers to explore and compare differences in perceptions among employers and employees toward the influence of industry-sponsored credentials. These two employment categories were selected as both executives and employees are likely to have different attitudes towards the influence of certification on decisions related to hiring and training. A sample of HR executives provided data on both organizational policies associated with recruitment and training, as well as their individual perceptions of the influence of IT credentials in the recruitment and training process. In the second stage of data collection, a sample of incumbent IT employees from the same firms provided individual response data on the same issues.

Population and Sample. The sample was chosen from a population of large firms. For the purpose of this study, a large firm was defined as having 500 or more employees. Firms were identified from the ReferenceUSA database, which contains more than 12 million listings of U.S. and global organizations with offices in the United States. Employing the criteria of 500 or more employees resulted in the selection of 3,330 firms. Since access to sampling frames of individual IT employees was unavailable, a letter of invitation to participate was sent to the Vice President (or equivalent title for the most senior manager of HR) to all 3,330 firms with 500 or more employees. The letter detailed the purpose of the study and the commitment required from employers and employees. A total of 161 executives responded to the invitation with 111 indicating that their firms had policies prohibiting their employees from participating in this type of research. The remaining 50 firms agreed to participate in the study. A self-administered questionnaire was mailed to HR executives along with instructions on procedures to recruit their firm's incumbent IT workers for the employee study. At the end of the data collection period, a total of 33 out of the 50 HR executives returned complete questionnaires representing a 66% response rate. A total of 245 complete employee surveys were received from IT workers at 13 of the 50 firms agreeing to participate (26% response rate). As we relied on the HR executives to distribute information regarding data collection to their IT workers, it was not possible to calculate the response rate for IT employees at the individual firm level.

Instrument. The HR executive instrument was a self-administered paper-and-pencil questionnaire containing open-ended items to determine the existing number of IT employees, the number hired in the past year, the number of current IT vacancies, items related to firm characteristics, and the perceived influence of industry-sponsored credentials on recruitment and training. The IT employee survey was a self-administered Internet based questionnaire designed to assess the perceptions of incumbent IT workers regarding the number and type of credentials held and their perceived influence on recruitment and training. Apart from the demographic information and firm characteristics, the same questions were asked of both HR executives and IT employees. The response items were measured on a five point Likert-type scale, anchored with strongly disagree to strongly agree. This measurement of the response items was based on a previous study of human resource management issues in the IT industry (Tu, Ragunathan, & Ragunathan, 2001). The content validity of the instrument was determined with review from an expert panel of five academics and five IT managers.

Data Analysis. Data analysis included descriptive statistics and t-tests to determine if significant differences in the perceptions of the benefits offered by industry-sponsored credentials exists between HR executives and IT employees, and between IT employees with and without industry-sponsored credentials.

Limitations. The principal limitation of this study is the low response rate obtained from both HR executives and IT employees. However, the response rate from those firms that did agree to participate is at or above the levels generally considered acceptable for this type of research. The generalizability of the results is limited to the degree to which other populations resemble the one studied. Furthermore, the lack of definition of the term IT employee may have caused confusion given the well-document difficulties in defining the boundaries of occupations within the IT industry. The sample was also limited to the degree to which the sampling frame provided correct information. Based on the number of returned surveys some concern can be leveled at the accuracy of the database on U.S. firms and HR executives used in the study.

Results

The 33 responding HR executives represented firms geographical dispersed across the U.S. The average number of IT employees in these firms was 423 employees with the mean number of current IT related vacancies 4.8 vacancies, and the mean number of IT employees hired over the past year was 50.7. According to the HR executives, it takes an average of 7.5 weeks to hire a new IT employee. One third of the 245 IT employees who participated in the study had either a four-year college degree or master's degree (34%). The largest reported education category for IT employees (38.5%; n = 94) was "some college or formal training" as the highest level of education. The attainment of a two-year associate's degree was indicated as the highest level of education by 22.1% (n = 54), a four-year college degree by 25.4% (n = 62), and a master's degree by 8.6% (n = 21). Almost seventy percent (69.4%, n = 170) of employee respondents indicated that they had earned one or more IT industry-sponsored credential. The 245 IT employee respondents in the study held a total of 406 IT credentials. The mean number of years employed in the IT industry was 7.3 years and the mean number of years employed in their current organization was 10.3 years.

Firm Characteristics. The perceptions of HR executives reveal that IT industry-sponsored credentials are becoming increasingly important to hiring decisions in many organizations. An overwhelming number of the HR executive respondents (84.8%, n = 28) pointed out that they notice an increasing number of applicants with industry-sponsored credentials responding to IT job advertisements. Employers (HR executives) also indicated that they were beginning to use IT industry-sponsored credentials as the qualification of choice for some of their IT positions. Over two thirds of the employer respondents (66.7%, n = 22) revealed that they specify IT certificates/credentials for certain IT positions. With a mean of 3.63 (on a five point scale), a large number of respondents (62.5%, n = 20) rated IT industry-sponsored credentials as either important or very important to their non-managerial level IT employee-hiring decisions. Nearly half the HR executives (42.4%, n = 14), either agreed or strongly agreed that their organizations require employees to maintain and update their IT related credentials. Finally, two-thirds of the responding HR executives (66.7%, n = 22) either agreed or strongly agreed that their organizations provided funding for credentials programs facilitated by an outside vendor.

Perceived Influence of Credentials on Recruitment and Training. Table 1 compares the perceptions of HR executives and IT employees on the benefits of credentials to recruitment and training.

Table 1. *Comparison of Perceptions of HR Executives and IT Employees*

Items	HR Executives		IT employees		
	Mean	%(Agree/strongly agree)	Mean	(Agree/strongly agree)	t-statistic
Benefits of credentials to Recruitment					
Identify an applicant's skill sets and knowledge more easily	3.82	78.8 (n=26)	3.58	64.1 (n=157)	-1.28
Make the recruitment process easier	3.45	54.6 (n=19)	3.60	61.5 (n=150)	0.88
Make recruitment cheaper	3.03	39.4 (n=13)	3.30	40.0 (n=98)	1.59
Make recruitment more time efficient	3.39	51.5 (n=17)	3.50	55.1 (n=135)	0.70
Benefits of credentials to training					
Reduce training costs for IT workers	3.41	53.2 (n=17)	3.18	43.6 (n=107)	-1.10
Reduce amount of time for new employees to learn their jobs	3.39	48.5 (n=16)	3.30	49.8 (n=122)	-.47
Improved IT employees' abilities to creatively solve problems	3.30	39.4 (n=13)	3.10	38.8 (n=95)	-.90
Improved theoretical understanding of IT products, networks, and customer needs	3.55	54.6 (n=18)	2.32	12.3 (n=30)	-7.23*
Increase the chance of success for new employees	3.52	48.5 (n=16)	3.64	62.0 (n=152)	.75

Note. The percentages and means represent those respondents who either agreed or strongly agreed to the above statements on a five-point scale. * Significant at $p < 0.05$.

Research question 1 examined if differences exist between the perception of HR executives and IT employees as to the influence of industry-sponsored credentials on the recruitment process. Both employers and employees perceive one of the main benefits of industry-sponsored credentials to be the identification of the applicants' job related skills and knowledge. Employees were stronger in their belief that industry sponsored credentials make the recruitment process easier, cheaper, and more time efficient than their HR executives. However, none of the differences between employers and employees related to recruitment were significant.

Research question 2 explored the differences between employers and employees in terms of the perceived benefits of credentials to training. Employers were more likely than IT employees to believe that industry-sponsored credentials reduce training costs, the time taken for new employees to learn the job, and improve problem solving abilities. However, the only significant difference was the perceived benefit that employees with IT credentials have improved theoretical understanding of IT products, networks, and customer needs.

Perceived Influence Between Employees With and Without IT Industry-sponsored Credentials. A series of independent-sample t-tests were conducted to answer research question 3 which explored differences between IT employees with and without industry-sponsored credentials on the perceived influence of industry-sponsored IT credentials on recruitment and training (see Table 2). An independent sample t-test comparing IT employees with no IT credentials to those with one or more IT credentials. The perception of the influence of credentials on recruitment produced a statistically significant difference ($t = -2.20$, $p = .01$) for the item "makes recruitment cheaper". A significant difference was also found ($t = -3.01$, $p = .002$) for the item "makes recruitment more time efficient". Significant differences were also found for two items related to training. The first item was" credentials improve theoretical understanding of IT products, networks, and customer needs" ($t = 2.40$, $p = .02$). The second item was "credentials increase the chance of success for new employees" ($t = -2.23$, $p = .02$).

Table 2. *Independent Samples t-tests*

Item	N	Mean	SD	t	df	Sig (two-tailed)
Identify knowledge/skills easier						
No credentials	75	3.52	1.03	-.65	243	.52
Credentials	170	3.61	1.02			
Makes recruitment easier						
No credentials	75	3.55	1.02	-.72	243	.48
Credentials	169	3.64	.98			
Makes recruitment cheaper						
No credentials	75	3.12	.90	-2.20	243	.01*
Credentials	170	3.42	1.01			
Makes recruitment more time efficient						
No credentials	75	3.24	.97	-3.01	243	.002*
Credentials	170	3.64	.92			
Reduce training costs for IT workers						
No credentials	75	3.17	1.13	-.02	243	.98
Credentials	170	3.18	1.15			
Reduce time for new employees to learn their jobs						
No credentials	75	3.13	1.06	-1.52	243	.13
Credentials	170	3.37	1.15			
Improve abilities to creatively solve problems						
No credentials	75	3.12	1.07	-.10	243	.92
Credentials	170	3.14	1.06			
Improve theoretical understanding						
No credentials	75	2.53	.99	2.40	243	.02*
Credentials	170	2.22	.90			
Increase the chance of success for new employees						
No credentials	75	3.44	.86	-2.23	241	.02*
Credentials	168	3.73	.94			

Note. * Statistically significant at $p < 0.05$.

Conclusion and Discussion

Certification and credentialing are noted as being hot topics for continuing education and training with Carnevale and Desrochers (2001) describing the challenges and opportunities they present to the delivery of IT training and development. Yet, the impact of industry-sponsored credentials remains largely unexamined, raising questions regarding their role and place in organizational decisions. This study provided an initial look at how both employers and employees view credentials. This research explored the perceptions of human resource executives and incumbent IT employees on the influence of IT industry-sponsored credentials in recruitment and training.

Examining the mean scores the findings from this study suggest that HR executives are more likely to agree than disagree that IT industry-sponsored credential assist in the recruitment process, especially in helping to identify skill sets required by applicants for IT positions. The majority of HR executives surveyed were more likely to agree than disagree that industry-sponsored credentials reduce training costs. However, the findings of this study show that very few significant difference exist between HR executives and IT employees in terms of the perceived influence of industry-sponsored credentials on recruitment and training. The only significant difference between the two groups (employers and employees) was a training related benefit that employees with IT credential have improved theoretical understanding of IT products, networks, and customer needs. This may suggest that employees with specific industry knowledge recognize the level of theoretical understanding that credentialed employees posses, whereas HR executives may believe that the product specific focus of credentials results in employees who lack a broader level of theoretical understanding of IT products, networks, and customer needs.

It is a reflection of the growth and acceptance of IT industry-sponsored credentials that almost 70% of the 245 employee respondents in this study have at least one IT-sponsored credential. In comparing employees with and those without industry-sponsored credentials we found a total of four significant differences, two related to recruitment and two related to training. The recent transition to many people earning credentials with little or no IT industry experience with expectations of finding immediate employment and a high salary has potentially created this situation where those IT employees with credentials view their perceived influence differently from employees without IT industry-sponsored credentials.

The perceptions of HR executives toward IT industry-sponsored credentials are seen as being important, as the attitude of senior ranking HR executives no doubt influence the policies and management practices of the firm. Credentials play an important role for defining the knowledge base and skill level for an industry. This then becomes a useful tool for human resource managers involved in recruiting IT employees and for HRD managers involved in making policies that support the required updating of their employees' credentials. The opinion that HR executives have towards industry-sponsored credentials has implications for educators, trainers, IT employees, and HR executives to share knowledge about various credentials, their individual reputations, and their influence on decisions related to recruitment and training and development. Based on the current findings it would be interesting to note where HR executives gain information about IT credentials. Given the shortage of research on IT industry-sponsored credentials it is possible that HR executive and employee attitudes are being shaped by the portrayal of IT credential in the media and in various trade and professional association publications.

The decision to hire, promote, or advance an IT employee is dependent on a complex array of factors that seek to match the knowledge, skills, and abilities of applicants to the vacancies or opportunities existing within the firm. The attitude of senior human resource executive, IT managers, IT staff, and applicants towards IT industry-sponsored credentials and their utility to the employee, the return to the organization, and responsibility of update are likely to be important issues. Much additional research on this issue is needed. The credentialing issue has created much interest for HRD as to the influence of an industry developed and sponsored credential of skill sets on decisions related to recruitment, training, and advancement. This study has focused on industry-sponsored credentials from one industry, yet it must be acknowledged that credentials are now a major issue in the education and training for many occupations and professions. However, much additional work remains to explore the differences in how employers and employees view credentials in terms of both initial entry and for the long-term development of necessary skills, knowledge, and abilities to ensure that an organization is able to realize the sustained competitive advantage represented in their human resources. The findings of this study suggest that a closer examination is needed to examine the perceived influence of credentials on specific aspects related to recruitment and training. For example, does the possession of a industry-sponsored credentials influence the selection of applicants invited to an interview, the type of pre-employment testing, and the examination of the applicants job background with contacts of references? Future research should also explore individual differences among IT employees with and without IT industry-sponsored credentials in terms of the amount and type of training participation as well as the resulting outcomes from training participation.

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The Role of Training and Development in Newspaper Recruitment Advertisements

Kenneth R. Bartlett
Harriett R. Porter
University of Minnesota

This project examined newspaper job advertisements to identify if references to training and development are increasingly listed as a benefit of employment. The study is framed by psychological contract theory and the broader level social exchange theory. Using well-validated content analysis techniques, the newspaper job advertisements for three major U.S. metropolitan areas were examined for a one-week period in 2001 and compared to the same one-week period from 1991.

Keywords: Recruitment Advertisements, Psychological Contract, Training

In a rapidly changing business environment it is noted that training and development activities assume greater importance for organizations (Ulrich & Lake, 1990) with several studies supporting the documented increasing organizational expenditure on human resource development (HRD) in recent years (ASTD, 2001). The emergence of the knowledge economy only serves to increase the importance of a well-skilled labor force that receives on-going training, development, and education in the face of the constant changes, which now define today's business environment. Based on figures from the organizations included in the 2001 Association for Training and Development (ASTD) State of Industry Report many U.S. companies are now spending over $1.2 million on training annually (p. 5). The report also indicates that at least 37 U.S. companies have an average expenditure on training of $33 million (p. 7). Goldstein (1993) noted that more than 90% of all private organizations have some type of systematic training program.

Problem Statement

Despite evidence on the increasing provision of training no research currently exists to determine the extent to which specific mention of training and development opportunities are made in newspaper job advertisements. Furthermore, it is not known if references to training and development may have changed over time, particularly in light of the new psychological contract between employers and employees in which additional features and benefits of a job are made available to prospective employees. If employers accept the new psychological contract they are likely to acknowledge this in their attitude, behavior, and communication with existing and potential employees.

One manifestation of this acknowledgment is the wording of recruitment advertisements. The significance of this acknowledgement and the value of this study examining changes in wording related to training in recruitment advertisements is that it supports the view that organizations increasingly recognize the strategic investment of training. This confirms the strategic role of human resources as a source of competitive advantage as advocated by the resource-based view of the firm (Wright, Dunford, & Snell, 2001).

Theoretical Framework

Two somewhat contradictory theoretical explanations are offered for the recent documented increase in organizational training expenditure. Martocchio and Baldwin (1997) suggested the rise in training, especially in large corporations, is the result from the on-going transition towards a more strategic approach to both human resource management and HRD. This viewpoint seems well supported in the largest, often times global, organizations who have developed strategic plans for every aspect of their business operation, including the development of their human resources. Yet, despite many calls for HRD to adopt a more strategic approach the literature suggests that an enormous amount of training expenditure produces no real competitive gain or strategic advantage for the firm (Swanson, 1995). Therefore, the adoption of a strategic approach to training seems to provide only a partial explanation for the increased role and investment in training.

Alternatively, it is argued that the increase in training and development investment can be attributed to the belief that training is viewed as a "right of membership and as a requisite for elevation to an elite position" (Scott & Meyer, 1991, p. 298). This is suggestive of a social desirability function of training. As firms compete for scarce

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human talent they are required to alter their perception of what the organization is required to offer in return. This is in keeping with the concept of the psychological contract literature, which examines the employment relationship as being embedded in the context of social exchange theory (Blau, 1964). The terms and conditions of this reciprocal exchange between employee and their organization are defined in both formal written contracts and within in the psychological contract (Rousseau, 1989). In 1998 Paul Sparrow, a professor of international human resource management in the United Kingdom, argued that the field of human resource development could learn much from this construct.

Psychological contracts describe an individual's beliefs about their employment relationship and are defined as "employees' perceptions of what they owe to their employers and what their employers owe to them" (Robinson, 1996, p. 574). The psychological contract guides employee attitudes about what they think they are entitled to receive, or should receive, because of real or perceived promises from their employing organization. Although, it is yet to be separated from more general studies of human resource management, there is evidence to suggest that HRD policies and practices also affect the psychological contract (Rousseau & Wade-Benzoni, 1994). As the psychological contract between employer and employee has expanded from satisfying immediate safety and compensation needs to a broader range of job challenge and career development issues the role of HRD has assumed greater importance. In other words, it is hypothesized that prospective employees will expect training opportunities in recruitment advertisements in return for their efforts related to the job and employers in turn recognize the need to provide training and development opportunities to recruit and retain human resources.

The psychological contract concept represents an extension of social exchange theory as the employment relationship is embedded in the context of this broader theory. Social exchange theory (Blau, 1964; Homans, 1961) describes the social relations among individuals and organizations where the relationship involves the exchange of valued items (Cook & Whitmeyer, 1992). Sinclair and Tetrick (1995) noted that this is one of the most commonly used frameworks for understanding individuals' work-related attitudes and behaviors. Social exchange theory suggests that self-interest drives people's social interactions. When this theory is extended to employee interactions with the organization in which they work or are considering working for, it implies that interactions between employees and the organization will continue as long as both parties derive benefits from the exchange. When employees perceive that the interactions are more beneficial than the costs, e.g., they are treated fairly or their learning needs are being met, it is more likely that the employee will honor their side of the relationship by behaving in ways that benefit the organization (Konovsky & Pugh, 1994).

When an individual employee perceives that the contributions they make obligate the organization to reciprocate with contributions, a psychological contract emerges. It should be noted that psychological contracts are defined by their perceptual and individual nature, making them distinct from both formal written contracts and implied contracts (Robinson & Wolfe-Morrison, 1995). Furthermore, psychological contracts are highly subjective (Guzzo & Noonan, 1994). If the employee perceives their contract to have been violated by the organization, the result may be a lower level of commitment from the employee to their employing organization (Burack & Singh, 1995). Empirical support for this proposition was found in a longitudinal study of master of business administration (MBA) students who were tracked over the first years of their employment following graduation (Robinson, Kraatz, & Rousseau, 1994).

Existing research supports the idea that employees may perceive a psychological contract violation when the organization does not appear to fulfill important obligations (Lewis-McClear & Taylor, 1997). Harrell-Cook and Ferris (1997) noted that organizations face competing pressures from stockholders for short-term financial performance, which may limit the extent of HR investments such as training and development. These authors noted that "if employees perceive that they are slighted, they may conclude that they are receiving unfair treatment by the organization" (p. 332). Extending this argument, it maybe that applicants who do not see prominent mention of training and development in job recruitment advertisements may direct their job search efforts elsewhere.

Schein (1980) argued that psychological contracts act as powerful determinants of organizational behavior. Human resource management practices are acknowledged as affecting the psychological contract (Lucero & Allen, 1994; McLean-Parks & Schmedemann, 1994). Examples of how HR practices shape the psychological contract are provided by Rousseau and Wade-Benzoni (1994):

> How jobs are advertised ("great advancement potential," "opportunity for salary growth"), the way the organization is portrayed during recruitment interviews ("this organization provides plenty of training"), comments made in performance appraisal review ("keep up the good work and we will move you up"), and compensation systems (wages based on rank or time on the job), all send strong messages to individuals regarding what the organization expects of them and what they can expect in return (p.465).

Given the above examples it is not surprising that Rousseau and Greller (1994) stated "a major function of human resource management is to foster an appropriate psychological contract" (p. 385).

More recently, it has also been suggested that HRD managers have a role in defining and maintaining employees' psychological contracts (Sparrow, 1998). Training is viewed as a human resource practice that can be controlled or managed to elicit a desired set of unwritten reciprocal attitudes and behaviors. Desired work-related attitudes include job involvement, motivation, and organizational commitment. In return for demonstrations of desired work-related attitudes and behaviors employees have altered their view of many HR practices, including HRD. Many employees now view training as a benefit of employment as it is commonly regarded as a means for advancement (Ashenfelter & LaLonde, 1998). This could suggest that employees seek employment in firms that offer and promote training and development opportunities. At the same time, organizations involved in recruitment desire to have a large applicant pool of not only qualified applicants but of future employees likely to be highly committed and accepting of the need for lifelong learning.

This argument is supported by Finegold (1998) in his reflection of changes in employee loyalty. He suggested that historically an organization was able to offer job security in return for employee effort. However, times have changed as evidenced by repeated rounds of re-engineering, restructuring, downsizing, and outsourcing. The organization, although no longer able to offer employment security, promises to increase the employability of its workers by investing in their continuous skill development and provides opportunities and rewards for using these skills (Finegold, 1998). Additional support for this proposition was found in the recent content analysis study of the new employment relationship in that it is now considered the "employers' responsibility to provide training, education, and skill development opportunities and the employees' responsibility to take advantage of those opportunities to develop and maintain their skills" (Roehling, Cavanaugh, Moynihan, & Boswell, 2000, p. 312-313).

Extending this argument to the current study, it is suggested that firms now place greater emphasis on promoting training and development opportunities to assist in recruiting new employees. This is likely to be a key feature of the job interview and initial orientation training to promote the formation of desired psychological contract. This emphasis on training and development as a benefit of employment is also likely to be present in formal communication from the organization in order to attract applicants for vacant positions, such as recruitment advertisements in newspapers.

Research Question

The core research question guiding this study was: are references to training and development in newspaper job announcements more likely to be seen in 2001 than they were in 1991? More specifically, it was thought that based on existing literature and the changing nature of the psychological contract that the percentage of job advertisements referencing training and development would be higher in 2001 as compared to the same time period ten years ago. This was tested with the following two research hypotheses.

> *Hypothesis 1: The percentage of newspaper advertisements referencing training and development will be greater for one-week in 2001 as compared to the same time period in 1991.*
>
> *Hypothesis 2: The proportion of advertisements referencing training and development for one week in 2001 will be significantly different as compared to the proportion from the same time period in 1991.*

Method

To explore if firms are more likely to mention of training and development opportunities we used newspaper recruitment advertisements to examine the number of references made to training and development. It was thought that based on the existing literature that firms may view announcements of training and development in recruitment advertisements as a way to demonstrate their support and commitment towards individual development, improved organizational performance, as well as reflecting the recognition that training is a socially desirable aspect of the job that employees now view as a right of employment.

Previous research on newspaper job announcements found that opportunities for advancement have traditionally been ranked high among job attributes by job seekers (Jurgensen, 1978). Many job postings now provide more detailed information on the amount and type of training applicants can anticipate in addition to details on the job characteristics, salary, and benefits. This supports the findings of Barber and Roehling (1993) that applicants find job postings with more detailed information more attractive than advertisements that only provide sketchy details of the job. Existing studies have examined how newspaper job advertisements have changed over time to reflect the

changing job duties of HR managers (Redman & Mathews, 1995) and in the desired specialty field of physicians that hospitals seek (Seifer, Troupin, & Rubenfeld, 1996). Yet, no existing research has examined the wording of recruitment advertisements in relation to references of employer provided training and development.

This research study used a content analysis methodology to gather frequency and percentage data to examine if references to training in newspaper job announcements occur more frequent in 2001 than in 1991. The well-supported content analysis technique of Kassarjian (1977) was used to examine the text in newspaper job advertisements. Content analysis can be defined as "an observational research method that is used to systematically evaluate the symbolic content of all forms of communication" (Kolbe & Burnett, 1991, p. 243). It is noted as "being a scientific, objective, systematic, quantitative, and generalizable description of communication content" (Kassarjian, p.10). This method of research inquiry is well established in marketing, social psychology, political science, and consumer research yet no evidence exists within the HRD literature. Despite the existence of multiple options available for an employer seeking to promote a vacant position the newspaper advertisement remains the most commonly used method to advertise job opening (Schreier, 1983). To determine if references to training are more prevalent in 2001 than ten years ago we examined newspaper job advertisements from three major U.S. cities for a one-week period in 2001 and compared this to the same newspaper for the same week in 1991. The ten-year time period was selected as previous content analysis studies of related to changing aspects of employment have used this time horizon (Redman & Mathews, 1995). Additionally, it was thought that this would be an adequate time period in which to notice changing trends that have mirrored changes in the psychological contract (Sparrow, 1998).

Sample

The procedure for selecting the cities was designed to reduce a potential regional influence. The analysis was limited to newspapers from U.S. major cities. Recent U.S. Census (2000) data was used to identify cities having a population of or greater than 1,000,000 in their Metropolitan Statistical Area (a geographic entity defined by the Office of Management and Budget for use by federal statistical agencies, based on the concept of a core area with a large population nucleus, plus adjacent communities having a high degree of economic and social integration with that core" http://factfinder.census.gov/home/en/whatsinaff.html).

To avoid over-representation of East Coast cities, the list of all 49 MSA's meeting the population requirement of 1,000,000 or more residents were divided into three categories based on their respective time zone. The cities in the Mountain and Pacific time zone were combined due to the small number of MSA's within the population parameters in the Mountain time zone. The ten largest cities in each of the three regions were listed (a total of 30 MSA's equally dispersed on 10 each on the the East Coast, Mid-section, and West Coast). A random number from one to ten was selected to produce one city from each region. The three selected cities were Atlanta, Minneapolis, and San Francisco. The reason that the study focused on only three cities is because of the quantity of data that one week of newspaper advertisements from both 1991 and 2001 generates. This selection procedure for the sample was thought to reduce any potential regional bias in selecting cities from which to examine newspaper recruitment advertisements. The largest daily newspaper in each of the three cities was selected. Initial analysis revealed that the vast majority of recruitment advertisements appear on a single day of the week, Sunday. Therefore, the final sample was all newspaper job recruitment advertisements from the Sunday edition of newspapers from three large U.S. cities for the same one-week in 1991 and 2001. This resulted in a total of 6,553 advertisements for 1991 and 5,249 for 2001.

Procedures

The newspaper job announcements were read and classified by the absence or presence of training opportunities mentioned as a feature of the advertisement text. Training was defined as reference to one or more of the following terms: training, development opportunities, career development opportunities, tuition reimbursement policies, CEU assistance, and organization supported advancement opportunities. All newspapers from 1991 are now contained only in microfilm format. All pages with job advertisements were printed directly from the microfilm reader. The advertisements from 2001 newspapers were cut directly from the purchased editions. Two copies of each advertisement were made with both researchers reading and highlighting each reference to HRD. This procedure provided an easily identifiable mark to assist in the inter-rater reliability process. Using this method an inter-rater reliability of 98.5% was achieved. A second reliability measure was conducted four weeks after the first analysis. Each researcher re-analyzed a random sample of 200 advertisements for a test-retest reliability measure. As detailed

in Table 1 all of the reliability coefficients exceed the .80 coefficient cutoff points suggested for content analysis (Kassarjian, 1977).

Table 1. *Reliability Coefficients*

Classification Category	Inter-rater Reliability	Test-re-test Coefficients
Advertisements with reference to training	.985	.979

Results

Table 2 presents the total number of advertisements for the week for the two years under investigation, the frequency of advertisements referencing training, and the percentage of total advertisements that referenced training. The total frequency of newspaper job advertisements in the three selected cities for 1991 was 6,553 advertisements and 5,249 for 2001, representing a reduction of 1304 (19.89%) job advertisements over the one-week period for the two years under investigation. The number of newspaper job advertisements with reference to training in the three selected cities for 1991 was 445 and 408 for 2001.

Table 2. *Frequency and Percentages of Advertisements with References to Training*

Year	Total number advertisements Atlanta	Total number advertisements Minneapolis	Total number advertisements San Francisco	Advertisements with reference to training (all cities)	Percentage of advertisements with reference to training
1991	2447	2928	1178	445	6.79
2001	1546	3008	695	408	7.77

While the number of references to training actually decreased the findings support hypothesis 1 in that the percentage of job advertisements referencing HRD is higher in 2001 as compared to 1991. Approximately 7.77% of advertisements in 2001 contained a reference to HRD compared to 6.79% in 1991 despite the overall reduction in the number of job advertisements for the week under investigation.

To examine the significance of the difference between the proportion of advertisements referencing training and development in 2001 and 1991 a comparison test for two proportions was performed for each city. This test considered variation in a categorical variable and two categories. The categorical variable was the yes or no response to a reference to training and development in an advertisement and the two categories were the years 1991 and 2001. Given the large sample (number of total advertisements) the *Z*-score for the test statistic was calculated for the proportion of advertisements with reference to training for each of the three cities in both 1991 and 2001. The formula for this equation is presented below:

$$Z = \frac{\left(\hat{p}_{1991} - \hat{p}_{2001}\right) - 0}{s.e.\left(\hat{p}_{1991} - \hat{p}_{2001}\right)}$$

Results shown in Table 3 indicate that the proportion of advertisements referencing training in 1991 and 2001 is significantly different in two of the three cities. More specifically, a significant difference in the proportion of advertisements with reference to training as compared to all job advertisements was found in Atlanta and San Francisco but not Minneapolis. This offers partial support for hypothesis 2.

Table 3. *Z-Scores of Proportions of Advertisements Referencing Training Opportunities 1991-2001*

	Atlanta	Minneapolis	San Francisco
Z-score of proportion	-2.63* ($p < .001$)	1.86 ($p = .615$)	-4.55* ($p < .001$)

* $p < .001$

Discussion

Existing literature supports that there appears to be wide spread agreement that organizations now recognize the value of providing training opportunities. Existing research also has suggested that employees are increasingly seeking growth and educational opportunities as a feature of their work in response to the changing psychological contract, which has placed more emphasis on employees being more self-directed in gaining the skills, knowledge, and abilities needed for not only their current job but also future jobs (Roehling et al., 2000). Yet, no research has investigated if employers are increasingly offering training as benefit of employment in their communication with potential job applicants. This research study sought to address this situation by examining the text of newspaper advertisements to determine if references to training and development are more common in 2001 than in 1991.

Results from this study showed that despite a reduction in the overall number of job advertisements placed in the newspapers of three large U.S. cities the percentage of advertisements with reference to training has increased. The reasons for the overall drop in the both the number of advertisements and the numbers with reference to training is no doubt due to a wide variety of factors including the both the local and national labor market. Furthermore, the emergence of the Internet as a recruitment method may have reduced the number of advertisements placed in newspapers. It was for this reason that the research hypotheses examined the percentage and proportion of advertisements referencing training rather than the frequency.

The proportion of advertisements referencing training and development in 2001 was found to be significantly different that the proportion referencing training and development a decade earlier in two of the three cities we examined. We are unable to offer an explanation for why one city (Minneapolis) would not have produced a significant difference in proportion in the number of advertisements that reference training. This is perhaps a result of the type of jobs advertised for in this MSA. In conclusion, both research hypotheses in this study were supported or partly supported suggesting that employers' are more likely to make reference to training as an aspect of their communication with potential applicants for positions advertised in the newspapers three selected major U.S. cities in 2001 than they were a decade earlier.

We believe that trends in recruitment advertising are an excellent way to track changes in how both employers and employees view the importance of training within the context of the changing psychological contract. More detailed analysis of the advertisement text is needed to fully understand the context of how employers' position training and development to potential job applicants. Additional future research should investigate variables related to the position or occupation being advertised to determine if training and development is more likely to be offered with certain occupations. Similarly, there may well be an industry affect so efforts to categorize the organizations placing advertisements into industry clusters would provide additional information on this topic. Finally, future research on references to training and development in newspaper advertisements should examine if the findings of this study are consistent in other countries. A potential international extension of this research would be to replicate this study in a sample of cities and countries to determine if the increased reference to training and development in newspaper advertisements is confined to the United States or if it reflects a global trend in response to the acknowledgement of both employers' and employees' to the growing importance of training and development for organizations and individuals.

Implications from the findings of this study suggest that HRD practitioners could play a greater role in the recruitment process. More specifically, HRD professionals should work closely with HR managers and recruiters to produce effective recruitment announcements that highlight the organizational commitment to development human resources. Additional research is needed to determine what reference to training and development job applicants are expecting to see in recruitment advertisements and if this influences the decision to apply.

The results from this research suggest that employers' are increasing the frequency with which they reference training in job advertisements, which may influence the expectation that employees' (both current and newly hired) have for both access to training and the amount of participation in training and development. This expectation that employees' have towards training has implication for how HRD is approached by the organization. Perhaps employee attitudes towards their expectations and the reality of HRD support from the firms influences work-place attitudes, such as organizational commitment, job satisfaction, and turnover intentions, as well as measures of individual performance. HRD professionals should continue their efforts to develop and deliver training, career development, and organization development for individual and organizational learning so that future replication studies of this research finds that the trend towards increased references to training and development in job advertisements continues.

The findings of this research should be interpreted with recognition of the limitation of this study. The primary limitation is the examination of only one day from three large U.S. cities. However, the quantity of data and time required to examine each advertisement impede attempts to get a more representative sample in terms of the number of days and cities from which to examine advertisements. As such the generalizability of the results from this study are limited to the degree to which other populations resemble the one studied. An additional limitation of the study was the lack of definition of the term training. In an attempt to be unique and creative in their recruitment efforts organizations use a variety of words to reflect their commitment of employee development. These words and phrases do not always confirm to the agreed upon definitions of HRD researchers. Future research should consider using existing definitions of training and HRD to generate words from which to analyze the text of newspaper advertisements.

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Recruiting and Developing *HRDQ* Reviewers: Why You Should Do It and What You Should Look For

Christine M. Squillaci
San Jose State University

Darlene F. Russ-Eft
American Institutes for Research

Timothy G. Hatcher
University of Louisville

Tonette S. Rocco
Florida International University

Baiyin Yang
University of Minnesota

The purpose of this innovative session is to recruit and develop reviewers for AHRD's research journal, Human Resources Development Quarterly (HRDQ). It will also serve as a refresher for current reviewers on what the process is and provide an opportunity for questions and/or comments about the review process.

Keywords: Peer Evaluation, Editorial Review

The need for talented manuscript reviewers is something that is always of importance and is especially important to the Editors of *Human Resources Development Quarterly (HRDQ)*. While *HRDQ* offers much to the Human Resource Development field, good quality reviewers can add even more by utilizing their expertise in the review of manuscripts submitted for publication. In order to bring the field forward and to have the journal cited more frequently, we need individuals from not only universities, but corporations as well. These two areas combined add to the value of our journal being applied in more areas and as a forerunner in research-to-practice literature. The notion of using both researcher and practitioner to review manuscripts has been suggested as having significance to the review process itself (Campion, 1993a).

Epstein (1995) proposed 10 guidelines to improve the journal review process. While these guidelines can be useful, some are not practical to the *HRDQ* review process. One of Epstein's (1995) suggestions was to reveal the identity of the reviewer to the author. This was met with more resistance than agreement (Fine, 1996; Rabinovich, 1996). The current system of blind review used by *HRDQ* may allow for more truthful reviews, although the argument could be made otherwise. Others (Cowen, Spinell, Hightower, & Lotyczewski, 1987) question the validity and reliability of the review process itself. While our goal is not to change the current review process or to debate its relative value, we do intend to educate potential reviewers and explain why the current method is used.

It should be clarified that the review process is not a place for reviewers to take out their aggressions on authors nor to focus on the negative, which has on occasion appeared to be the case (Fiske & Fogg, 1990; Levinson, 1996). Instead, the review process should provide constructive criticism and suggestions for improvement in addition to any negative critique (Bedeian, 1996; Rabinovich, 1996). Each manuscript does have some merit and should be respected by the reviewers and the editors. That said, reviewers and editors need to be aware of any biases they may have and have a way to manage them (Epstein, 1995). Manuscript review and journal publication is a way to further expand the Human Resource Development field and spark more research and even debate into it.

Session Description

The proposed session will address these issues among others. It will serve as a forum of how to review an article and what constitutes a quality review versus a weak review. It will offer potential reviewers and any current reviewers an opportunity to ask the Editorial Board questions and allow them to gain further insight about the review process. Issues such as why we review manuscripts, how the process works, how one does it and what is

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required of them, why academic and corporate reviewers are needed, and others that surround the review process will be addressed and clarified. Suggestions for improvements may be discussed including the pros and cons of the authors reviewing the reviewers. Most importantly, the value that an individual brings as a reviewer will be discussed and how that value adds to the greater good of the Human Resource Development field.

Presenters and Panelists

Five members of the *HRDQ* Editorial Board will conduct the innovative session, one of who will act as the moderator and facilitator for the audience. All members will discuss what reviewers should look for when reviewing a manuscript. More specifically, the Managing Editor will discuss the manuscript review process. The Editor and Associate Editor will discuss what the merits are for being a reviewer and why individuals from both the academic and practitioner worlds should consider the opportunity to contribute as a reviewer. To further develop reviewers, both the Qualitative and Quantitative Method Editors will discuss the methodologies often used to refresh potential reviewers and offer other relevant suggestions.

Session Objectives

In order to recruit and develop *HRDQ* reviewers, the innovative session will offer a 'developmental session' followed by a question and answer or discussion period to expose new and current reviewers on how to review a manuscript. The session will achieve this by completing the following goals:

- Give a background on what *HRDQ* is and does for the HRD community
- Introduce selected members of the Editorial Board and their relevant roles
- Allow key members of the Editorial Board to present what is important in a review
- Explain the role of the reviewer and its importance
- Elucidate the process that is in place and why this process is used
- Offer examples of 'good' versus 'bad' reviews, what can be done to improve them, and what constitutes valuable feedback
- Encourage members of both the academic and professional arenas to consider this opportunity and the advantages of doing so
- Facilitate a question and answer or discussion period
- Provide potential reviewers the General Guidelines for manuscript review and who they contact should they decide to pursue the opportunity

Session Structure

The session will be broken down into five sections as follows.

1. Introduction of what *HRDQ* is, how it contributes to the HRD community and brief introductions of select members of the *HRDQ* Editorial Board and their relevant roles and responsibilities. (Length: *15 minutes*)
2. Panel discussion of the reviewer's role and responsibilities, the current process that is used and some important aspects in a review. (Length: *15 minutes*)
3. Small group discussion: distribute examples of good and bad reviews; develop basic principles of what constitutes a good or bad review. (Length: *30 minutes*)
4. Presentation and discussion of small group suggestions. (Length: *20 minutes*)
5. Wrap up and further encourage audience members to consider the opportunity to become a reviewer; distribution of General Guidelines for manuscript review and contact information. (Length: *10 minutes*)

Contribution

The innovative session is planned so participants will receive a background of *HRDQ* and the manuscript review process. Participants will hear from active Editorial Board members about why the review process is important and what they can do to further add value. The format has been designed so enough information is presented as to facilitate a potential reviewer into making a well-informed decision by the end of the session.

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Design, Demand, Development, and Desire: A Symposium on the Discourses of Workplace Learning

John M. Dirkx
Michigan State University

With panelists:
Richard A. Swanson
University of Minnesota

Karen E. Watkins
University of Georgia

Maria Cseh
Oakland University

The purpose of this session is to explore more fully how each of these dominant discourses conceptualize the phenomenon of workplace learning, with particular attention to understandings of the self in relation work. The emerging discourse of desire is then used to make problematic prevailing assumptions within the dominant discourses of self, learning, and the meaning of work. Thoughtful consideration of these four discourses may help lead us to a deeper appreciation for the complexity and contradictions of learning in and through work.

Keywords: Workplace Learning, Adult Learning, Learning Organization

The idea of learning in and through work challenges common, everyday, person-on-the-street understandings of learning. If randomly selected adults were asked what learning means to them, they would undoubtedly say it involved studying books they are assigned to read or listening to someone lecture in a classroom setting. In the minds of many adults, learning is associated with hierarchically structured, authoritarian environments in which they had little to say over what they learned or how. Such an image of learning so prevalent among adults is understandable, given the twelve or more years in which we are socialized into a particular form of teaching and learning. This image of learning as something we do in a special place, in locations and buildings quite distinct from the everydayness of our lives, particularly our work lives, has dominated education and training in the United States and much of the western world for many years. Despite its roots in a progressive philosophy, even the term "adult education" conjures up for many images of highly structured classroom-based activities oriented to helping adults master the basics of reading, writing, and math - grown-up versions of elementary and secondary education.

Within the fields of HRD and adult education, however, we have seen an alternative understanding of learning emerge, the idea of work and the workplace as a major location for adult learning and development (Garrick, 1998; Welton, 1991). The breadth and scope of work-related learning is one of the most well-kept secrets in the United States. While considerable public debate surrounds policy and practice of elementary, secondary, and higher education at all levels of government, workplace learning continues to emerge as a sleeping giant of educational practice. Each year American corporations spend more on training than is spent for all of k-12 and higher education combined (Galvin, 2001). In the year 2001, over 14 million adults received workplace training. These figures largely reflect formal efforts in workplace learning, events which are organized and structured in somewhat formal and traditional ways. Yet, recent research clearly demonstrates that workplace learning is increasingly constituted by informal learning as well (Marsick and Watkins, 1990). When adults engaged in these forms of learning are included, the total number participating in workplace learning dwarfs other forms of educational practice. The phenomenon of workplace learning has clearly arrived as a legitimate and significant focus for educational research and theory.

Human Resource Development (HRD) has emerged as the field most closely aligned with understanding and fostering workplace learning. Over the last 20 years, the field has begun to develop a strong theoretical base that guides both its research and practice. As scholars continue to clarify and elaborate the phenomenon of workplace learning,

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differing and potentially contradictory conceptions have surfaced (Rowden, 1996), reflecting quite different understandings of the self, the meaning of work to the self and what it means to learn in and through work. In this symposium, we explore the major discourses surrounding workplace learning. For purposes of discussion, we refer to these ideas within three dominant discourses, design, demand, and development. We then examine the theory of desire, an emerging perspective in workplace learning (Fenwick, 2001), to help tease out assumptions and issues regarding the problem of subjectivity and meaning inherent in these two perspectives. Finally, the symposium poses further questions for exploration and research raised through an analysis of desire in workplace learning.

Before we review the dominant discourses of workplace learning within the field of HRD, it may be helpful to first clarify our understanding of what is meant by the term "workplace learning." We then situate our discussion of the dominant discourses within this understanding.

The Meaning of Workplace Learning

While we might agree that the workplace is an important location for adult learning, there is less agreement as to just what that means or what is meant by the term "workplace learning." Increased attention to this phenomenon has also highlighted the various ways in which this term has come to be understood. For example, formal learning in the workplace is typically associated with hierarchically structured technical training programs, with a formal curriculum that has been constructed by professional educators or trainers, and teachers or facilitators who "deliver" the curriculum to worker-learners. This form of workplace learning perhaps most closely approximates common understandings of what it means to learn and how this learning is organized and structured. In a 2001 survey, *Training* magazine reported that over three-fourths of the training sponsored by corporations takes place within traditional-looking classrooms structures (Galvin, 2001). Planned training on the job represents a variant of this more traditional model of workplace learning but retains its emphasis on specific outcomes and learning as a formal, carefully planned and structured activity (de Jong, Thijssen & Versloot, 2001).

Other scholars, however, stress the importance of workplace learning as primarily informal or incidental (Cseh, Watkins, & Marsick, 1999; Marsick & Volpe, 1999; Marsick & Watkins, 2001)). That is to say, learning often occurs "outside formally structured, institutionally sponsored classroom-based activities" (Marsick and Watkins, 1990, p. 7). It can include informal activities as self-directed learning, networking, coaching, mentoring, performance planning, or learning from particular incidents, such as involvement, trial and error, or the actions of others. A kind of hybrid of informal and formal learning has also evolved in the form of action learning (Yorks, O'Neil & Marsick), in which team members use somewhat more systematic and structured activities to study and learn from specific aspects of their work. In addition, attention to informal learning has spurred the idea of the "learning organization"(Senge, 1990) in which workplaces are organized and "sculpted" in such a way to integrate learning within one's work in an ongoing and continuous manner (Watkins and Marsick, 1993). In this sense, individual learning promotes and encourages group and organizational learning and change. For some within this viewpoint, the ideas of learning and work are inseparable.

Still, for others, the rhetoric of workplace learning masks the organizations' real concerns for increased performance and productivity (Garrick, 1998, Hart, 1990, 1995, Welton, 1991). While not necessarily denying the fact that learning occurs in and through work, these critics focus on how the language of workplace learning tends to distract us from more fundamental issues with regard to the worker and the organization of work. They point to "very important links between the ways in which work is organised, the content of work and 'opportunities' for employees and learning" (Garrick, 1998, pp. 56-57). They suggest the ways in which our understandings of workplace learning have paralleled historical changes in the workplace, from scientifically managed environments to "cybernetic learning organizations and enterprises (p. 56). According to these theorists, attention to workplace learning is subtly transforming our understandings and notions of knowledge to align more closely with the skills of "competent performance" and with pre-specified industry standards. Hart (1995), in particular, explores the ideological assumptions inherent in dominant notions of workplace learning and how these various conceptions have influenced women's work. Reflected in these historical changes are transformations of our sense of who we are as workers, as well as our broader sense of identity..

Despite the rhetoric surrounding workplace learning, its problematic nature remains with us. Employers expect immediate transfer of what is learned to the work performed and are often disappointed to see what little effect formal training has on long-term productivity or efficiency. Educators and trainers often find themselves caught between a rock and a hard place - trying to appease the goals of their employers yet trying to address the needs, interests, and desires of the workers themselves. Responding to employer demands and expectations, workplace educators plan and implement brief training programs they know to be of questionable value in the development of needed knowledge and skills.

Employers seek a number of skills among their desirable workers but seldom is adequate time devoted to the fostering and development of these complex skills. Workers often have little choice about participating in these programs, which typically fosters resentment and resistance to the employer's learning objectives. Workers often see formal learning programs irrelevant to the real needs they have in their work and largely a waste of time. In a recent national study of the use of integrated curriculum within adult literacy education, a middle aged-man participating in a workplace literacy program succinctly captured this tension. A welder in a large manufacturing plant, he was told to participate in a work-based program to help improve his reading skills. The curriculum was presumably grounded in the context of his work at the plant. When asked by a researcher what he thought about the reading program in which he was a student, he said that it was largely a waste of time. He perceived what they were teaching as having nothing to do with what he does on the job. He added, "Now if they would teach me how to read to my grandson, that would be something" (Dirkx & Prenger, 1997).

The phenomenon of workplace learning is constituted by numerous structures and processes and framed by broader organizational and social politics. Our understandings of this phenomenon - how we make sense of these questions, tensions, and potential contradictions - are shaped by three dominant discourses. For purposes of discussion, we have labeled these as the discourses of design, demand, and development. Within these different discourses, our understandings of workplace learning are shaped and bounded by particular assumptions about "self-in-context - the organizational contexts of particular institutions and corporations, and the broader socio-cultural contexts in which workplace learning and these organizations are embedded. Differing conceptions of workplace learning both shape and are shaped by differing understandings of the self that is engaged in the learning process.

The Discourses of Design and Demand

The discourse of design stresses specific products to be derived from the design and implementation of specific workplace learning activities. These products are clearly specified prior to the learning experience and serve to guide all phases of the planning, implementation, and assessment of workplace learning (Yelon, 1996). The notion of performance improvement within HRD and workplace learning are framed within a discourse of design (Torraco, 1999). While reflecting more contemporary issues and contexts, this perspective has its roots in early 20th century scientific management (Taylor, 1911) and scientific curriculum-making (Bobbitt, 1918) movements. Grounded in a behavioral psychology, the design perspective understands work as a composite of specific skills and knowledge that, with analysis, can be readily identified. The idea is to specify the knowledge and skills reflected in and needed by "real-world" performance and to select activities most appropriate to yielding these performances (Yelon, 1996). The difference between what the job requires and what workers already know and are able to do is considered the "gap" that workplace learning needs to address. Through their work, HRD practitioners aim to provide the specific skills and competencies workers need to know and do in order to meet the requirements of their jobs. Through the design and implementation of specific training interventions, workplace learning is intended to eliminate these deficiencies and contribute to the workers' overall productivity and performance.

In this discourse, workers are constructed as "knowable objects," (Fenwick, 2000, p. 295) and largely viewed and understood through measures of productivity and performance. It is a common language within the literature on workplace literacy and is reflected in modern-day versions of task analyses being applied to developing training curriculum, such as the increasingly popular WorkKeys program produced by ACT (http://www.act.org/workkeys). According to ACT, WorkKeys can help "employers identify and develop workers for a wide range of skilled jobs, students and workers document and advance their employability skills, and educators tailor instructional programs to help students acquire the skills employers need." In helping to foster a stronger workforce, ACT believes WorkKeys is contributing to the economic health of our nation. This discourse stresses the importance of competency-based curricula and measurable outcomes of training, carefully linked to both local and global measures of productivity and economic well-being.

As it was initially conceived, the discourse of design reflects a largely individualistic and causal perspective on the process of workplace learning. Individuals are responsible for production and performance, and training is targeted to address the skills they needed to contribute to the overall performance of the organization. For the most part, worker-learners are seen as largely passive recipients of knowledge and skill they are determined to need in order to more productive and effective. Increasingly, however, this "design" perspective is yielding to a somewhat more complex understanding of the relationship of the worker to the work and the organizational context in which this work is done. We refer to this emerging discourse as the discourse of demand. This discourse, shaped and influenced by performance

improvement (Swanson, 1999) and systems theory (Checkland, 1981), seeks to recognize the role that context plays in workplace learning and how the various elements of that context serve to ultimately determine the nature of workplace learning. The demand perspective stresses the socio-technical context (Dillon, 2000) in which individuals engage in workplace learning and in which organizations support investments in workplace learning. According to Dillon (2000), "Unlike the pragmatism of usability engineering which aims to support the design of technologies that are compatible with users' abilities and needs, [socio-technical systems theory] posits underlying drives and motivations to use tools that supersede concerns with effectiveness and efficiency alone" (p. 119). Socio-technical approaches blur prevailing distinctions between structuralist, human relations, and open systems approaches. The goals of organizations, individuals, and the work itself create a framework for workplace learning that can at times stimulate, restrict, or redirect learning. Throughout history individuals have had the basic survival requirements of food, shelter, and clothing that demand productive effort and the necessity to learn. Similarly, organizations have the basic demands of survival and growth that necessitate learning. Within this symposium, the discourse of demand is examined in terms of (1) the integrity of a symbiotic relationship within a productive context and (2) the effects of exploitation on workplace learning (workers exploiting their organizations or organizations exploiting their workers.

Thus, within the discourse of demand, workplace learning reflects a complex relationship between the individual, the work, and the organization. While the somewhat simplistic, linear, and causal notions of earlier design perspectives have been challenged, the discourse of demand stresses the role of learning in the life, performance, and productivity of the organization. Workplace learning is viewed as a function not only of individual ability, style, or the resources made available to the learner but also the role of the group and organizational context in shaping the nature of workplace learning.

The discourse of demand focuses our attention on motivational issues and broader organizational contexts neglected by the discourse of design. It stresses the limitations to our understanding of approaches which rely almost exclusively on mechanistic assumptions of workplace learning (Bierema, 1996). Yet, the discourse of demand ultimately seems concerned with organizational performance rather than learning and development of individual workers. In a sense, the individual learner is a kind of "cog" (albeit an important one) in a complex system of interacting components. In contrast to the discourses of design and demand, the discourse of development offers a more organismic perspective on the workplace and the self as worker in these contexts.

The Discourse of Development

In contrast to the discourse of design and, to some degree, the discourse of demand, the fundamental assumptions which characterize the discourse of development are grounded in the progressive education movement of the late 19th and early 20th centuries. While it maintained close connections with industrial training and agriculture, the progressive movement stressed the idea of education as a continuous reconstruction of living experience (Dewey, 1938), with the adult learner and his or her experience at the center of the educational endeavor (Lindeman, 1926). The progressive movement challenged what many perceived to be the mechanistic and functional views of education being fostered through scientific curriculum making. The discourse of development stresses the active role that the worker plays in the process of learning and the relationship of the "curriculum" of work to the experience, beliefs, and perceptions that the worker brings to the workplace. While it would be inaccurate to characterize this perspective solely as a "learner-centered" approach, the process of learning is conceptualized as starting with what the learner brings to the context of learning. What workers come to know and understand through the process of workplace learning reflects who they are as persons and how they are making sense of their experiences in the workplace.

The discourse of development is also heavily informed by a humanistic psychology (Maslow, 1968; Rogers & Freiburg, 1994). This discourse stresses development, fulfillment, and self-actualization of the worker (Bierema, 1996). Seeking to further his or her self-actualization within and through work, the worker's development, rather than specific skills and knowledge is viewed as the primary focus for workplace learning. The practice of HRD, then, is understood to focus on the development of the worker as a whole person, not merely the particular knowledge and skills related to his or her particular job. According to Bierema (1996), "A holistic approach to the development of individuals in the context of a learning organization produces well-informed, knowledgeable, critical-thinking adults who have a sense of fulfillment and inherently make decisions that cause an organization to prosper" (p. 22).

While rejecting the mechanistic discourse of design, the discourse of development reflects aspects of the discourse of demand, through its stress on the *learning organization* (Watkins, 1996; Watkins and Marsick, 1993), and the interconnectedness of all aspects of organizational life, including the overall well-being and development of the individual

worker. It is an organic understanding of wholes and relationships. While the systems view and the concept of the learning organization seek to move us from the machine-like structures and processes which dominate the discourse of design to more fluid, connected networks, Bierema (1996) reminds us that the fundamental task of organizational learning and development is development of the individual worker. Within this view, workplace learning is understood as a process of reflectively learning from and acting on one's experience within the workplace. Rather than a passive recipient of knowledge and skills perceived by others to be needed by the workers, in the discourse of development the worker is viewed as more actively involved in identifying what he or she already knows and how that knowledge can serve as a platform or structure for further learning and development. Typically, this learning occurs within the context of self-directed or self-managed groups or teams organized to promote both individual and organizational learning.

Implicit in each of these dominant views of workplace learning are assumptions about the nature of the self and the processes of self-formation that are at least potentially present within the workplace. In the next section, we will summarize an emerging perspective within workplace learning, that of desire. By looking at workplace learning through the lens of desire, we will make more explicit and problematic the assumptions of the self and learning reflected in the discourses of design, demand, and development.

The Discourse of Desire

A discourse of desire represents postmodern and poststructuralist perspectives on workplace learning and is grounded in the work of the psychoanalytic scholar Jacque Lacan (Fuery, 1995), among others. For the most part, dominant discourses around workplace learning suggest that the process is characterized largely by a linear progression. This process results in a one-way path from ignorance to knowledge, in which knowledge is viewed as a substance (Felman, 1987). The discourse of desire challenges both this way of thinking about learning and our understanding of knowledge (Butler, 1999; Todd, 1997). Unlike the progressive understanding of learning reflected in the discourses of design and development, a psychodynamic view suggests learning proceeds through "breakthroughs, leaps, discontinuities, regressions, and deferred action" Felman, 1987). Knowledge is considered not be a substance but a structural dynamic, arising from and characterizing the interactions between and among persons. It is not restricted to a single individual but is inherently dialogical. From the perspective of a theory of desire, learning requires the presence of an "other" and it is in that relationship with the other that learning, if it occurs at all, takes place. In this sense, the discourse of desire shares with the sociotechnical view a reliance on and concern for unconscious motivations and drives in the process of workplace learning. A discourse of desire points us to the unconscious dynamics of learning, and the complexity and paradoxes which characterize its presence in our lives.

The discourse of desire seeks to make problematic our dominant perspectives of workplace learning and their underlying assumptions. It takes its cue from the rumblings of alienation and disaffection which continue to haunt workplace learning efforts, despite the seemingly humanistic organizational reforms of the past 25 years. In this sense, we might think of the discourse of desire as a discourse of unmasking the inherently problematic nature of workplace learning. According to Fenwick (2000), educators who seek to "help workers thrive and serve a vocational community [confront] workers' struggles to find meaning and purpose in jobs where they seem increasingly to experience anxiety, stress, sadness, and despair. These are fundamental issues of identity related to work and the human quest to understand and unfold self" (Fenwick, 2000, p. 297). The study of self and identity strongly suggests that this struggle is integrally bound up with an impulse to learn and develop. The workplace, then, becomes a location for constructing a sense of self in the world (Britzman, 1998). Fenwick argues that, from a psychoanalytic perspective, this human quest involves recognition of the psychic events that make up our lives, the ways in which we often push many of these events - anxieties, fears, disruptions, mistakes, vicissitudes of love and hate - into the background out of conscious awareness. Learning something new and the prospects of change can bring us face to face with these unconscious aspects of ourselves. While the ego might perceive this learning as a threat to itself and garner defenses against the change, significant learning involves a working through of the "conflicts of all these psychic events and gradually coming to tolerate the self and its desires (p. 299). Thus, the discourse of desire and how it frames our discernment of the self suggests our studies of workplace learning must be grounded in a deeper understanding of the complex relationship that exists between a person's psyche and their experience in the workplace. Discourses of design, demand, and development do not adequately address either the complexities or the possibilities of the self or its relationships within the workplace. They may even circumscribe a practitioner's ability to perceive and address the gnawing existential problems surfacing within the world of work.

At the heart of work, then, are notions of desire and interference (Fenwick, 2001). Desire itself surfaces a sense of

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change, arising from this deep sense of the unfolding self, of wanting something to be different. But at the same time desire also evokes a sense of resistance to change and to learning. Recognition of this fact allows for an appreciation of work and workplace learning as a place where profound pedagogical encounters can occur. When we recognize and tap into this paradoxical situation, we often find new energies and enthusiasm emerging for our work. These energies, however, might be running counter to the established order or those purposes prescribed by educators or organizational leaders. For example, workers may at times subvert explicit efforts to "empower" them or other efforts to shape them in a particular way. They may resist such "learning-centered" approaches which seek actively engage the learner within his or her experience. Dominant discourses of workplace learning might lead us to interpret such acts as not going along with the organization's purposes or not wanting to learn and grow. When viewed through the discourse of desire, however, we might recognize workers as increasingly constructing and regulating their own "human capital." In this sense, workplace learning is interpreted through the discourse of desire as a form of transgression and resistance (Fenwick, 2001). Through these opportunities for and various forms of resistance, workplace educators seek the possibilities for work, learning, and identity construction.

Implications for Research and Practice in Workplace Learning

One of the objectives of this symposium is to foster awareness of the different ways in which we frame and come to understand workplace learning, and the consequences that ensue from such an understanding for ourselves as scholar-practitioners, for the organizations for which we work, and for the worker-learners. When we begin to think about our work in terms of the discourse itself, we develop a deeper appreciation for the complexities at the core of workplace learning. Ideas such as workplace literacy, informal learning, and the learning organization have dramatically increased our attention to the notion of workplace learning. Much of this rhetoric suggests a powerful potential for learning waiting to be tapped within the workplace. Yet, in reality the idea of work and the workplace as a location for adult learning and development remains problematic. Different groups with different interests attempt to control the discourse of workplace learning and the ways it comes to be understood within the organization and the broader community. Profound ideological differences bubble away just below the surface of workplace learning programs. Workers and educators alike struggle with the consequences of attempting to enact grand visions for workplace learning with the broader political spheres of the organization.

Both the problematic nature of work and efforts to reform and improve organizations and the workplace underscore the problem of meaning in workplace learning. Despite the press of these reform efforts, or perhaps because of them, workers continue to feel alienated and disenfranchised from their work (Hart, 1993; Saul, 1995; Rifkin, 1995). Employees' perceptions of themselves as workers has been eroded through organizational restructuring, downsizing, and re-engineering. Many are now seeking greater alignment between the work they do and personal values they hold deeply, such as attachment and spirituality (Fox, 1994; Mitroff & Denton, 1999).

Ongoing tensions continue to float in and around the nature of the work, its organization and structure, its capacity for fostering learning and development, and the personal desires of individual workers. These symptoms raise questions regarding the meaningfulness of formal workplace learning programs. Depending within what discourse of workplace learning we are framing these problems, we come to understand them differently and seek different "solutions." Implementing these solutions often becomes part of and further elaborates the fundamental nature of the problem. For example, emphasis is being placed on working and learning collaboratively and relationally, empowering workers, creating learning organizations, learning communities, communities of practice, and fostering reflection in practice. But organizational emphasis on quality standards, measurable performance, and competition tends to reinforce the organization's authority, sending mixed messages to both workers and educators and contributing to worker disenchantment and frustration with workplace learning programs. And both perspectives tend to ignore the complex workings of desire which shape the worker's thinking and feeling about learning.

The various discourses we use to frame our conversations and actions in workplace learning serve to help us *see* some important dimensions of this phenomenon but they also prevent us from perceiving other critical aspects. Consideration of these different discourses and the ways in which they shape our theory and practice in HRD provide for a deeper understanding of the complexity and contradictory nature of workplace learning.

Dirkx is chair and organizer of this session, and the primary author of this paper. In the session, the panelists will respond, from their respective theoretical positions, to the principle points of the paper.

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Two Approaches to Conflict Management in Teams: A Case Study

Mychal Coleman
Gary N. McLean
University of Minnesota

Two employee teams received conflict management training using lecture and exercises, and cooperative learning. A survey was administered at the end of training and three months later. After three months, observations were made and management interviewed. Initially, both groups were optimistic about their conflict management skills. In follow-up, only the cooperative learning group remained optimistic; the traditional group was less optimistic, primarily because of a lack of management support. Both approaches appear to be effective.

Keywords: Conflict Management, Team Building, Cooperative Learning

This paper describes and interprets two intervention strategies, a cooperative learning (CL) interactive approach to conflict management and a conflict management seminar taught under the traditional lecture method. These interventions were offered to two start-up self-directed work teams (SDWT) in a mid-sized surface-to-air medical trauma company

The use of teams in organizations continues to grow rapidly. Joinson (1999) reported that the Center for the Study of Work Teams indicated that by the year 2000 80% of the Fortune 500 organizations would have half of their employees on teams (p. 30). Teams have been suggested as ways to increase productivity, reduce costs, and improve customer relationships. Change agents have been called upon to design six sigma, reengineering, TQM, CQI, and strategic partnership teams. Yet, with the use of such teams often comes conflict. We assume that employees know how to work together when, in fact, they do not. Most employees on teams lack the basic tools to manage conflict. So the question for such organizations becomes, how can we best provide our employees who are working in teams with appropriate conflict management facilitation and training?

Statement of the Problem

There are countless studies that present evidence to support the need for training to resolve conflict in SDWTs. Friedman, Todd, Curra ll, and Tsai (2000) concluded that training should use an integrative style. Donovan (1996) suggested a 3step team building training process before empowering teams with managerial responsibilities. Moravec (1999) recommended that training be structured to deal with employee resistance to teams and change.

The problems, however, still persist: what type of training methods is best to use? How do we translate research into effective training interventions? Carroll (1998) believed that most of what has been written about teams has focused on introducing the reader to concepts and the rationale for teams. Further, he stated that these accounts meet the needs of people who are at the conceptual, exploratory stage but are not much help to individuals who need a how-to model (p.21).

With the growing popularity of teams, there has also been an explosion of commercial training programs. However, workshops tend to be somewhat vague about the psychological processes underlying teams (Magney, 1996, p. 565). Tsang (1997) made a similar observation on prescriptive books about team building and conflict management. Further, Joinson (1999) cited informal and anecdotal evidence that the failure rate of SDWTs due to various forms of unresolved conflict is 50% (p. 3). HRD professionals are under enormous pressure to design training interventions and to create change more efficiently the first time. Therefore, knowing what type of training method to use would be beneficial to the HRD profession.

This paper, then, will explore the effects of two types of training methods that were given to two start-up teams during their initial phase of development. Following are a brief review of the literature on conflict management (CM) and cooperative learning (CL); a description of the study's context and methods used (observations, interviews, and surveys); and conclusions about the efficacy of both approaches. No other case study has been identified that attempts to examine the effects of implementation of CL as a conflict management approach that is observed and studied in the context of one of two groups.

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Literature Review

This literature review examines conflict management (CM) research, including both the traditional lecture and cooperative learning (CL) training methods.

Conflict Management

At the organization level, Meyer (1999) suggested that it is management's responsibility to know the appropriate application for teams. If there is a lack of clarity in this organizational vision, conflict can arise in teams. Seaman (1995) argued that the major source of team conflict is management's strategic misalignment of teams. Seaman saw strategy as driving the development of all other elements, such as values, structure, culture, and information systems. All of these elements must line up to avoid conflict. Team leaders can also be a source of conflict. At this level, conflict may arise from issues of traditional command and control (Carroll, 1998) and management resistance to teams (Carroll, 1999; Seaman, 1995; Yeatts, Hyten, & Barnes, 1996). Yeatts et al. (1996) and Dreachslin, Hunt, and Sprainer (1999) cited research that suggested that the best teams are those of equal rank. Seaman (1995) argued that conflict arises from the lack of team autonomy.

The traditional lecture method or some variation of it is the preferred method for companies who train in conflict management. Kreitner and Kinicki (1998) found that Deloitte Touche sends both employees and teams to retreats to engage in relationship building. Team members are trained in CM by facilitators who help the groups interpret the meaning of the individual and team traits in order to build future relations. Carroll (1999) found in one organization that its traditional command and control structure of supervisors was the problem. Therefore, CM consisted of training to eliminate the company's old structure and to build interdependence. Liebowitz and Holden (1995) detailed how the Corning Corporation and Motorola use the traditional method to train its teams on participatory style.

Cooperative Learning

Cooperative learning (CL) is nothing new in the field of education. Educational psychologists have been recommending this technique for teachers in secondary and primary education for years. Recently, scholars have begun to look at its potential for preparing business students for the corporate world. The theory of CL was defined by Deutsch (1949) and further developed by Johnson and Johnson (1998), Slavin (1985), and Kohn (1992). While the literature is rich on CL, no references were found on the use of the actual implementation of CL for conflict management purposes within a corporate setting.

Carroll (1999) noted that task sharing among teams increased productivity. Seaman (1995) suggested that employees who interfaced on teams competitively instead of collaboratively produced negative outcomes. Dreachslin et al. (1999) found that defined roles in teams produced positive perceptions among team members. Kirkman, Jones, and Shapiro (2000) indicated that, if employees are more individualistic than collectivist, they will resist teams, producing lower levels of team effectiveness. Liden, Wayne, and Bradway (1997) and Pearce and Gergersen (1991) found that the relationship between group control over decision-making and group performance became more positive with increased levels of task interdependence. Thus, group control over decisions may result in higher performance.

While the previous studies implicitly touched on certain aspects of CL, Alper, Tjosvold, and Law (1998) explicitly cited the work of Deutsch (1949) and Johnson, Johnson, and Holubec (1998). They found that, when blue-collar employees created cooperative goals, their teams gained confidence and improved work productivity. Janz (1998) applied CL theory to a group of IT professionals, using cooperation, positive interdependence, face-to-face interaction, social skills, and group processing. Janz found that the autonomy inherent in SDWT might lead to increased levels of satisfaction, motivation, and performance. The level of CL that takes place on a team may be important in achieving improved work outcomes, according to Presutti, Williams, and Buzzi (1995) and Lindquist and Abraham (1996), who implemented CL in business classrooms.

Corporate Setting

Before the field research was conducted, the senior author served as the Director of Strategic Planning and Human Resources for the company involved. This surface-to-air emergency medical service (EMS) unit is headquartered in the upper Midwest, is a little more than 30 years old and has approximately 1,250 employees. It has a reputation that is second to none within its industry and is owned by a competing yet cooperative consortium of hospitals. The

company competes freely within and outside of its home state. Although the rotor wing division produces the highest volume of revenue per mission, it is the ground division that produces the highest revenue, while the fixed wing division currently operates at a loss.

The management team and the staff have a culture of close interactions and relationships, which at certain times draws the administrative process into chaos. This is perhaps due to the company's beginning as a sole proprietorship, in which every employee had to rely on each other, with a minimum of infrastructures and protocols. Employees often bypass line management to discuss issues of concern with the CEO.

The organization's position has fluctuated within the industry, partly because of economic cycles, and partly because of withdrawal of consortium subsidization, which had made the group complacent. The firm managed to stay afloat by quickly implementing cost reduction measures, such as outsourcing certain divisions, restructuring and reengineering other departments, and layoffs. In addition, the company closed several key bases that gave them market presence in rural areas.

Politically and economically, factors in health care demanded that companies do their work faster, more efficiently, and at less cost, while still maneuvering through truckloads of red tape for third party reimbursements. However, the oligopoly in which the firm competes makes increasing market share difficult. The firm is one of three leaders in its regional industry, and each has recognized that price cuts would trigger full-scale corporate warfare that none of the three wants. Finally, upgrading computer software during the impending Y2K issue had every EMS firm in the industry worried about costs.

Conflict occurred between the old ways of doing things and new approaches. Management believed that, in order to answer changing industry trends, changes must be made. The employees believed that the old ways were what established the firm's superior reputation. To some extent, both were correct. This company was no longer in its infancy; it was no longer a startup family business. It was now a mature company in a mature industry, seeking to find ways to survive, by, as the CEO remarked, "confronting our paradigms and culture."

The management team decided that one approach to developing a competitive advantage was to develop core skills to market billing services, which required developing the Billing Center. The Director of Operations suggested benchmarking competitors, while the Director of Finance argued that this would tip the firm's position and might allow competitors who were in a better position to service customers a head start. The CEO and the Director of Strategic Planning and Human Resources suggested that the process begin by forming a team that would assess the current processes and perform business process mapping of the current billing situation. Two objectives were assigned to the senior author, both of which would require team building: integrate and build infrastructures of the strategic business unit (SBU) (a recent merger with a small, rural company), and develop and market billing services by 2000.

Billing Team. The creation of a Billing Center was to expand into untested markets in billing and claims services by expanding reach and becoming more competitive within the health care industry, which was suffering because of the maturity of that market. They hoped to capitalize on targeting smaller firms that were facing near extinction due to additional government restrictions and compliance issues, as well as the impending Y2K issues.

Following intensive analysis, however, the project team found that the company's performance measures were considerably worse than those of competing organizations. The project team determined that these problems arose from outdated computer systems, duplication of processes, and incomplete data gathering by the clinical staff after transports. The Billing Team was given the responsibility of designing a new policies and procedures manual based on changes in the billing process. New job descriptions were also to be developed.

Within days of the final project meeting, the Billing Team started having problems with their assigned objectives. Members of the team expressed their concerns one by one to the CEO, lodging complaints against each other, about the lack of appropriate meeting procedures, and the massive assignment that lay before them. The Director of Strategic Planning and Human Resources was asked by the CEO to observe a team meeting and interview the members. Many arrived late for the meeting and were horrified that someone from management was there and had caught them late. Then, some who were late got upset with their counterparts for not warning them that the Director of Strategic Planning and Human Resources would be there.

There were no team rules; those who had the floor never got a chance to complete their point. There was mistrust in the air, with apparent factions that enforced their will by overruling other points of view. The agenda had 8 items listed, but only two were completed in the two-hour meeting. The day of the interviews, two of the six members called in sick. The other four told me of his or her distrust of management. "Management didn't take note of these concerns for years. These problems with billing didn't just happen over night." They also expressed their distrust of each other in ways one could not believe. A third theme was a lack of training and control. Finally, the employees had serious charges about the hostile work environment created by the former Director of Finance.

The situation had reached a boiling point. This group was a long way from becoming a cost center, let alone processing the company's claims. The CEO and the Director of Strategic Planning and Human Resources agreed that a skilled consultant was needed to assess the situation. The second author was hired for this purpose. In addition to several technical items, the consultant recommended training in team processes and conflict management. He also recommended that the teams be set up as cross functional. Therefore, for the purposes of conflict management training, the teams would be made up of all six billing employees, one from the clinical ranks, and two from the communication center. Another consultant was retained to offer a five-day conflict management seminar, using a traditional lecture approach.

Strategic Business Unit Team. The strategic business unit (SBU) is located in a neighboring state within a small rural town. The same initiatives that went into creating a revenue generating cost center were behind the decision to form a joint partnership. However, the objectives were quite different. The firm was looking to expand its reach and presence within the market. This partnership was the company's second attempt at expansion. Numerous problems started developing. The firm failed to account for how both companies' employees would react to each other. The rural employees resented the fact that most of the firm's employees did not consider them to have expertise and felt shut out during patient assessment. In truth, they did not have the high caliber of training that the company's employees were expected to have. Further, the rural employees also did not like the fact that most hospitals now referred to them as the company's name instead of their original name. They felt that having two types of supervisors and two different uniforms were confusing to the hospitals. Finally, the rural partner's employees were fiercely loyal to their base supervisor, and they believed that the firm's RN's were superceding their authority. The company employees were also loyal to the firm and its uniforms. They believed that respect must be earned, not just given away to employees who had no training or no critical care expertise. The Director of Strategic Planning and Human Resources was assigned solve the problems. Cooperative learning was the intervention selected.

Methods

The research was based on Tjosvold and Morishima (1999), Liden et al. (1983), Barker et al. (1997), Alper et al. (1999), and Janz (1998). The instructional methods used are provided below.

Following the training, both groups were surveyed using a survey similar to the earlier researchers. Second, the Linquist and Abraham (1996) White Peak survey instrument was selected because the authors actually implemented the jigsaw II CL method to college students, which is the closest survey instrument to our research intent. The company's management team reviewed the survey as well as administered it to another SDWT. The survey instrument was then modified to increase its reliability and validity. Because of the senior author's relationship to one of the sites, both surveys were administered and scored by Human Resources Assistants to increase controls. The first survey instrument assessed all dependent measures (employee attitudes, perceptions of self-esteem, interpersonal skills building, and perceived achievements) at the end of the training. The survey was comprised of 13 statements to which participants responded "strongly agree," "agree," "undecided," "disagree," or "strongly disagree," with "strongly agree" =1.

The second survey was administered three months after training. It was slightly modified to include CL terms. The inclusion of the CL terms was an attempt to examine differences between a team taught by the actual CL method and a team not trained in CL but which was given the CL terms, consistent with prior research. In addition, observations were made three months after training. The managing stakeholders of the process were also interviewed three months after the interventions to address productivity through the eyes of management. Productivity was also assessed through the group's timetables to completion of key initiatives.

Conflict Management Lecture Method

The traditional lecture method can best be defined as Instructional Objectives Learning (IOL). There are three components to IOL: performance, in which an objective always says what a learner is expected to be able to do; condition, in which an objective always describes the important conditions (if any) under which the performance is to occur; and criteria, where an objective describes the criteria of acceptable performance. The traditional conflict management lecture approach was used with the billing team. The consultant selected had solid experience in HRD, as well as an extensive theoretical background with a Ph.D. in HRD. There were three meetings between the consultant and the Director of Strategic Planning and Human Resources. Of the seven objectives that the group developed, the consultant focused on improving teamwork.

The first meeting covered and incorporated issues in the literature review, such as team failure, barriers to team success, and CM strategies. The second meeting addressed the current conflicts resulting from the assessments. We agreed that the best approach for the consultant to take was to focus on relationship improvements. The rationale was that, if relationship conflict could be resolved, task conflict could be managed and the team goals implemented. During the third meeting, the consultant presented her proposal, which was accepted after several revisions were made.

The seminar was designed for three sessions in which the consultant instructed using an instructional objectives learning approach. The Director of Strategic Planning and Human Resources added a fourth session, which lasted about 2 hours, to go over terms and definitions of CL without facilitating a CL lesson structure. This was done to prepare the team for the final survey on CL terms.

Cooperative Learning Methods

CL is a technique that requires students to work together in small, fixed groups on a structured learning task. In the literature CL was found to enhance student attitudes, perceptions of interpersonal skill building, and self-esteem. Common to all CL structures are four key components. First, positive interdependence must exist whereby students perceive that they must "sink or swim" together. This is achieved through goal, task, and role interdependence (Slavin, 1985). Second, face-to-face interaction among teammates must take place involving verbal interchanges. This allows students to talk aloud, challenge one another's points of view, and focus on the problem-solving process rather than the answer. Third, individual accountability must exist, requiring that every group member be accountable to learn all required material. Finally, interpersonal and small-group skills must be built into the CL structure. One such skill is group processing, whereby students analyze their own and their teammates' performance in the group. All of these components were built into the training.

The facilitator of the CL approach with the SBU was the Director of Strategic Planning and Human Resources, who has extensive experience in the traditional lecture methods and has an M.Ed. in HRD. The SBU consisted of thirty employees, fifteen of whom were selected by their peers to go to training, ten females and five males, eight nurses and seven technicians. The conflict management training for the SBU was longer than for the Billing Team because time was needed to train the SBU employees on strategic planning and continuous quality improvement. CL is different from the traditional lecture method in that the facilitator can structure a lesson (training) plan while developing the group's social skills (team building). Discussions with the co-partners resulted in an approved training agenda that included the barriers to teams, team failures, and CM strategies.

Results

Results are presented, in order, of the surveys, the observations, the management interviews, and the progress being made by the teams on their timelines for accomplishing their objectives.

Surveys

The surveys measured participants' perceptions of their attitudes, self in relation to teams, interpersonal factors, and training contributing to achievement, while the second survey added one question on accomplishments and four questions on CL. All nine members of the Billing Team responded, as did all 15 of the SBU team. See Table 1 for the results immediately after training and Table 2 for the results three months after the training.

Both groups were optimistic about their abilities to handle conflict and accomplish their goals immediately after the training. However, after three months, the SBU team was more optimistic, while there was considerable deterioration in the perceptions of the Billing Team. Although the Billing Team optimism had deteriorated, they still perceived that their goals were interdependent. However, they did not believe they were working together. The SBU also believed that their goals were interrelated, but they perceived that the team was working together to complete them. Of course, there is no way to know whether these differences occurred because of the training approach, the support offered to the teams by management, the personalities involved on the teams, or some other cause.

Observations

Observations made three months after the training revealed that the Billing Team relied heavily on the team champion who was the former supervisor of the dispatch team. She set the direction and accountabilities and

resolved sticking points, just as she had in her prior role, which had been eliminated. She agreed to allow observation at the next meeting without her presence. The group had problems deciding how to choose a facilitator,

Table 1. *Survey Results Immediately After Training*

Question	Billing Team Mean	sd	SBU Mean	sd
Attitude:				
Other team members	1.33	.71	1.26	.46
Handle conflict outside team	1.33	.50	2.33	.51
Delegate work to accomplish goals	1.56	.82	1.20	.38
How team members feel	1.56	.82	1.06	.38
Conflict management training was needed	1.11	.33	1.11	.35
Self Assessment:				
Own ability to resolve conflict	1.11	.33	1.26	.46
More part of the team	1.33	.71	1.06	.38
Interpersonal:				
Able to build better relationships	1.11	.42	1.26	.46
Prefer to work as a team	1.33	.71	1.06	.38
Better understand team member duties	1.33	.50	2.33	.51
Training Contributing to Achievement:				
Usefulness of role playing	1.11	.33	2.33	.51
Usefulness of listening and responding exercises	1.22	.44	1.26	.46
Usefulness of interactive skills practice	1.00	.00	1.20	.38

(1 = Strongly Agree)

Table 2. *Survey Results Three Months After Training*

Question	Billing Team Mean	sd	SBU Mean	sd
Attitude:				
Other team members	2.00	1.08	1.60	.51
Handle conflict outside team	1.22	.71	1.33	.97
Delegate work to accomplish goals	2.56	1.92	1.13	.35
How team members feel	3.56	1.92	1.27	.46
Conflict management training was needed	3.44	2.02	1.11	.35
Self Assessment:				
Own ability to resolve conflict	3.78	1.22	1.33	.97
More part of the team	2.77	1.95	1.40	.51
Interpersonal:				
Able to build better relationships	3.00	1.82	1.45	.51
Prefer to work as a team	2.67	1.72	1.20	.41
Better understand team member duties	2.67	.77	1.27	.46
Training Contributing to Achievement:				
Usefulness of role playing	2.67	1.41	1.27	.46
Usefulness of listening and responding exercises	2.67	1.41	1.27	.46
Usefulness of interactive skills practice	2.67	.77	1.28	.46
Meeting our goals	3.00	1.82	1.0	.00
Cooperative Learning				
We are working together	3.00	2.04	1.20	.41
My goals interrelated to team goals	2.33	1.91	1.20	.41
For me to succeed, team must meet its goals	1.22	.71	1.20	.41
Team supporting each member	4.11	2.33	1.27	.46

(1 = Strongly Agree)

which caused tension among the members. During the discussion, alliances became clear, with two informal leaders emerging, with each having an equal number of followers. This is consistent with team comments made after training where one team member stated, "The trainer was outstanding but how will we pick who will lead the team?" It appears that the group did not choose formally, so informal combatant roles developed. Another team comment was, "The training helped us get a start on how to relate to each other, but what will we do about assigning the many tasks that are ahead of us?" Responsibilities assigned were consistent with those laid out by the team champion . No other objectives were completed subsequent to her starting to lead the team. No one was held accountable. The only assignments that had been completed were those done by the team's cross-functional members. The remaining objectives were the billing employees' sole responsibilities. This meant that the team's timetable for completion was at least 5 to 6 months behind.

The observations of the SBU team were delayed an additional two months. As the group was assembling, they were deciding who would be the recorder, who would sum up each point, and so on. One person said, "I was gatekeeper last time, so that makes me the facilitator." The team members were all wearing the same uniforms, in response to their goal of providing consistent care. The meeting started with a sub-committee report with members from both groups of employees. The gatekeeper cautioned them about how much time was left. Various committees spoke on objectives that had emerged since the training. One committee report presented two opposing solutions to a problem. This was done with consideration, and the other members of the committee paid close attention to both perspectives and asked questions. This team was ahead of schedule and had exceeded expectations.

Management Interviews

The interview regarding the Billing Team revealed that the goals and the team's timetable were not done, even though it was two months past the target completion date. Only 30% of the objectives had been accomplished, and that portion was credited to the team leader who had facilitated the effort. The Director was shocked to hear that the other objectives had not even been begun. The team champion commented, "they (the team) seem to have gravitated back to the way they were." The senior manager involved acknowledged that he had let the team down by not staying on top of the situation. His team champion had not kept him abreast of the unfolding events on the team.

A conference call was arranged with the Director of Marketing and the co-partner at the SBU site. Customer complaints had fallen by 55% in the last six months, and sales were up by 5%; internal complaints about each other had stopped completely. The only negative comment was that "there still was a lack of management communication by both co-partners. The team was nearing 73% of completion of its objectives, and management was keeping them from completing more."

Conclusions

There are many limitations to this research case study. First, the two groups had different facilitators with different backgrounds and styles. Second, one author was the facilitator for the CL intervention. Third, the Billing Team had a long history of conflictive interaction, which is much more difficult to turn around than when the focus is on a team that has no previous experience of working together. The objectives for the two teams were also different, and the location (corporate headquarters in the city and the SBU site was in a rural setting in another state) also created some problems for the research.

Nevertheless, it is clear that the training itself was effective in both settings, based on the observations and the participants' perceptions as reflected in the surveys. The Billing Team perceived that they had moved to another level. The team was energized, upbeat, and open to possibilities of continuous change, and to that extent the traditional method worked well. The problem was that management failed to provide the time, resources, and support needed for the objectives to be met. As a result, the team gravitated back to their original level. Finally, while the Billing Team believed their goals were interrelated their productivity, as judged by management was below standards, a result inconsistent with prior research.

CL is promising as an application in the business environment. CL methods were also extremely cost effective, as it took twelve meetings to facilitate a strategy for the billing department plus another four days for conflict management training. The CL tool was able to do both in four days.

There is clearly a need for much more research on this topic. It would be appropriate, perhaps in a larger corporate setting, to carry out a similar study, but to follow experimental methodology. CL has been around for a long time in education and has proven to be effective in a business context.

Implications for HRD Practice

HRD is always seeking cost effective approaches. CL may be a way for organizations to deal with the need for conflict management, while at the same time accomplishing some other strategic initiative, thus killing two birds with one stone. CL appeared to have a consistent way of having teams remember their roles and leadership procedures during meetings, whereas the team trained under the traditional lecture method appeared not to use their CM training. This study is of importance because there is no identified attempt to implement CL training for purposes of conflict management in a corporate environment.

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A Force-Field Analysis of Factors Affecting Men and Women Choosing to Become Professional Pilots

Steven L. Anderson
St. Cloud State University

David J. Pucel
University of Minnesota

This study investigated the use of force-field analysis to identify factors that could influence people to enter fields where there are critical shortages. The procedure was applied to factors that might positively or negatively influence men and women choosing to become professional pilots. Twenty factors were identified as having significantly different importance to the recruitment of both men and women. Implications for the design of recruitment efforts for both men and women are significant.

Keywords: Recruitment, Professional Pilots, Force-field Analysis

Recruitment of personnel into positions where there is a serious shortage is a problem that affects many fields. This study investigated the use of force-field analysis to identify positive factors that could be emphasized during recruitment and negative factors that might be minimized to remove barriers to recruitment.

The procedure was applied to the recruitment of professional pilots. The air transportation industry is currently experiencing a shortage of qualified professional pilots. This shortage is affecting all levels of the industry. Flight schools, charter operators, corporations, and regional and major airlines are all having difficulty finding and retaining professional pilots.

The shortage is attributed to a combination of rapid growth in the air transportation industry and the increasing number of airline pilots (mainly Vietnam era military trained pilots) reaching mandatory retirement age. Activity in the air transportation industry is expanding at rates of five to ten percent a year. At the same time pilots are expected to retire at rates from ten to twenty percent a year during the next decade (Hedden, 2000; Mark, 1999).

Although there is a need for more men and women to become interested in becoming pilots, the small numbers of women pilots suggests that women may be a particularly untapped source. They represent only 3.75% of all Federal Aviation Administration (FAA) certified professional pilots in the United States (AOPA, 2000). In addition, over the past ten years that number only increased by about one percent (FAA, 2000).

Many factors have been barriers to women becoming professional pilots. One major factor has been the military as the primary source of professional pilots. Until recently women were not trained as military pilots. Another has been the historical negative sentiment toward women becoming professional pilots (Thornberg, 2000; Turney, 2000; Turney, 1995).

Problem

Increasing the number of men and women pilots to meet future needs will require recruitment efforts based on an understanding of factors affecting the choice to be a professional pilot. It will be important to not only understand factors that might positively influence choice but also factors that might negatively influence it. Such information can be helpful to human resources departments, educators, and industry leaders in emphasizing the positive factors and trying to take action to remove the negative factors.

This report presents a study that investigated the factors that might positively or negatively influence men and women choosing to become professional pilots. In addition, it investigated whether the factors differ for women and men.

Career Choice Literature

There is a large body of research on general career choice, career development, and non-traditional career choice. Although this research does not specifically include aviation career choice, it does offer insight into factors that might influence career choice and recruitment in general. Past research suggests many recurring themes that

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influence career choice among men and women such as: their tendencies to pick traditional work roles, family influences, societal influences, peer pressure (Freeman, 1997; Bee, 1996; Lankard, 1995; Gunn, 1994), the importance of role models and mentors (Kerka, 1998; Jewett, 1996; Kelly, 1993), the influence of teachers and guidance counselors, the impact of early experiences (Furlong & Biggart, 1999; Stitt-Gohdes, 1997; Lent, Hackett, & Brown, 1996), and the differing views of men and women about what is important in a career (Gati, Osipow, & Givon, 1995).

Method

The study was conducted using a methodology called force-field analysis (Harrison, Shirom, 1999; Lewin, 1951). It is based on the premise that there are both positive and negative factors that influence individual decision-making. The extent to which each factor influences a person's decision is based on how important it is to the individual. This level of importance is called factor strength. If the sum of the strengths of the positive factors influencing a choice outweigh the sum of the strengths of the negative factors, it is believed that a person will make a positive choice. The reverse is also true.

The first phase of implementing this methodology is to identify the range of factors that might have positive or negative influences on a decision. The second phase is to ask those knowledgeable about the particular decision to rate each factor according to its strength as a positive or negative factor (Harrison, Shirom, 1999; Rothwell, Sullivan, McLean, 1995).

This study implemented the force-field methodology in three stages. First, factors that might affect a person's decision to become a professional pilot were identified. This was done by developing an initial list based on a review of the literature, and two brainstorming sessions with seven female and 13 male volunteer university bachelor's degree aviation majors. The list was then sent to a selected group of 15 female and 15 male aviation experts identified by the staff of St. Cloud University's aviation program. They were asked to add additional factors that might be missing. During this first stage the goal was to identify as large a list of brainstormed factors as possible. All factors suggested were added to the list. Editing was done only to remove duplicate items. Seventy factors were identified.

The second stage was to send the list of factors in the form of a rating scale survey instrument to a sample of professional pilots to determine which factors influenced their choices. It was not possible to identify people who might have considered becoming a pilot and did not. Therefore, an assumption was made that by studying women and men who were already professional pilots, inferences could be made about individuals who did not choose to become pilots.

The population of professional pilots within the United States was identified through a commercially sold CD containing the 1998 FAA database of pilots' names and addresses (Avantext, Inc.) Random samples of 300 female and 300 male pilots were drawn. The first 250 within each sample were considered to be the primary sample. The 50 additional people in each sample were designated as random alternates to replace people whose surveys were never delivered due to an inaccurate address.

The survey instrument had two parts. The first gathered demographic data from the subjects on three variables: gender, number of years as a professional pilot, and type of pilot. The three types of professional pilots were airline, corporate/charter, and "other" pilots. The second part contained a rating scale designed to allow subjects to rate the extent to which they felt each of the 70 factors identified during brainstorming influenced their decision to become a pilot. Subjects rated each factor using the following scale.

-3	-2	-1	0	+1	+2	+3
strong negative influence			no influence			strong positive influence

Positive ratings indicated a factor had a positive influence and negative ratings indicated it had a negative influence. A rating of zero indicated it had no influence. It was decided that a zero rating would be defined as a rating between -.5 and +.5 because less than .5 would be rounded to zero. Therefore, in order for a rating to be considered it would have to be less than -.5 or to be positive it would have to larger than +.5.

Data Gathering

Once the instrument was developed it was sent with a cover letter explaining the study to all 300 male and 300 female pilots. In addition two follow-up mailings were sent to those who did not respond. During the three mailings

52 male and 56 female survey instruments were returned incomplete because of bad addresses. Since two more inaccurate addresses were found for and 6 more were found for females the effective sample was 248 males and 244 females. This resulted in an overall response rate was 68% (333/492). The response rate from the males was 66% (163/248) and the response rate from the females was 70% (170/244).

Results

Demographic Data

The demographic variables of type of pilot and years as a professional pilot were analyzed to determine if there were significant differences between males and females. The data are presented in Tables 1 and 2. Results of chi-square analyses revealed that there was no significant difference in the distributions of types of pilots between males and females (X^2 = 1.853, p = .396). The largest number of pilots were airline pilot and the smallest number were corporate. However, there was a significant difference in the length of time the males and females had been pilots (X^2 = 36.732, p < .000). The males tended to have been pilots for a longer period of time than females.

Table 1. *Types of Professional Pilots for Males and Females*

	Type of Pilot			
	Airline	Corporate	Other	Total
Male	76	35	66	163
Female	69	35	52	170
Total	145	70	118	333

X^2 = 1.853, p = .396

Table 2. *Amount of Time as a Professional Pilot for Males and Females*

	Years as a Professional Pilot			
	0-10 Years	11-20 Years	21+ Years	Total
Male	25	57	81	163
Female	64	71	35	170
Total	89	128	116	333

X^2 = 36.732, p = .000

Positive and Negative Influences

The factors that positively and negatively influenced choices to become professional pilots were analyzed by first calculating the mean ratings to each factor for males and females. Positive means meant the factors had a positive influence and negative means meant they had a negative influence. The factors were then placed in rank-order according to the means separately for the females and males. The rank-orders assigned by males and by females were compared using a rank-order correlation. The rank order correlation indicated that the ordering of the factors by both men and women was very similar (r=.77, p < .05). Because of this overall similarity the ratings of the men and women were combined and overall mean ratings were placed in rank order to represent the ratings of the total group as presented in Table 3.

Sixty of the 70 factors were found to have a positive influence on career choice and 10 were found to have a negative influence. After applying the decision rule that mean ratings between -.5 and +.5 would be treated as zero ratings, 33 factors were identified as positive and only one was negative. Those that fell between -.5 and +.5 are indicated in Table 3 in italics. Cost of required training/education was the only negative factor remaining.

A review of the positive factors suggests that they can be categorized into the following themes: enjoyment of aviation, support of peers and flight instructors, perception of career and education requirements, desire for challenge and responsibility, early exposure to aviation, science, and technology, perception of potential income and lifestyle.

Differences Between Male and Females. Although the relative ordering of the factors by males and females were similar as indicated by the rank order correlation, differences the actual magnitude of the influence of the factors for females and males were examined for each of the factors separately. It was possible that although males and females would view the various factors similarly in terms of there rank order of influence, the actual amount or strength of influence of the factors for males and females could be different.

Table 3 . *Rank Order of Career Choice Influence Factors for All Respondents*

Rank	Influence Factors	Mean
1	Love of Flying	2.5700
2	Interest in Aviation	2.5300
3	Desire for Challenging Career	2.1400
4	Perceived as a Fun Profession	1.8700
5	Perceived as an Adventurous Profession	1.7200
6	Desire to Prove Personal Abilities	1.7000
7	Desire for Career with a High Level of Responsibility	1.6800
8	Desire to Travel	1.5200
9	Perception of Achievable Lifestyle	1.4300
10	Perceived Prestige of Being a Professional Pilot	1.4000
11	Perceived Travel Benefits	1.3700
12	Perceived Career Advancement Possibilities	1.3300
13	Perceived Technical Nature of Profession	1.3200
14	Support and Encouragement of Flight Instructor(s)	1.2600
15	Early Exposure to Aviation	1.2500
16	Perceived Innate Ability	1.1900
17	Desire to Pursue Non-Traditional Work Role	1.0600
18	Perceived Potential Income	1.0400
19	Desire for a Technical Profession	1.0300
20	Exposure to Science/Technology at Young Age	1.0000
21	Perceived as a Glamorous Profession	0.9900
22	Perceived Knowledge Requirement	0.9700
23	Parental Support	0.9000
24	Desire to Serve Others	0.7900
25	Training Methods Used	0.7700
26	Knowledge of Professional Pilot Career Options	0.7500
27	Peer Support	0.7000
28	Availability of Math/Science Courses in High School	0.6400
29.5	Perceived Training Requirements	0.5600
29.5	Exposure to Aviation Mystique	0.5600
31	Same Gender Role Model(s)	0.5400
32	Military Career Potential	0.5300
33	Desire for Authority	0.5200
34.5	*Same Gender Mentor*	*0.4600*
34.5	*Perceived Societal Support*	*0.4600*
36	*Exposure to Non-Traditional Gender Roles at Young Age*	*0.4400*
37	*Family Member (other than parent) was/is a Pilot*	*0.4200*
38	*Opposite Gender Mentor*	*0.4000*
39	*Encouragement to take Math/Science/Technical Classes in High School*	*0.3800*
40	*Opposite Gender Role Model(s)*	*0.3500*
41	*Required High School Math and Science courses*	*0.3400*
42	*Parent was/is a Pilot*	*0.3200*
43.5	*Family Influence to Become a Pilot*	*0.2900*

Table 3 (continued) . *Rank Order of Career Choice Influence Factors for All Respondents*

Rank	Influence Factors	Mean
43.5	*Early Retirement Options*	*0.2900*
45	*Parental Expectations for Career*	*0.2400*
46	*Proximity to an Aviation School*	*0.2300*
47	*Perception of Same Gender Pilots by Peers*	*0.1800*
48	*Expectations of Math/Science Teacher(s)*	*0.1700*
49	*Perceived Family Life Impact*	*0.1400*
50	*Knowledge of Equal Employment Opportunity Rules and Current Hiring Trends*	*0.1300*
51	*Perceived as a Dangerous Profession*	*0.1200*
52.5	*Opposite Gender Flight Instructors*	*0.1100*
52.5	*Amount of Time Required to Become a Professional Pilot*	*0.1100*
54	*Availability of Same Gender Flight Instructors*	*0.0721*
55	*Perceived Medical Requirements*	*0.0661*
56	*Amount of Training/Education Required*	*0.0631*
57	*Parent was/is a Professional Pilot*	*0.0541*
58	*Historical Hiring Patterns*	*0.0480*
59	*Same Gender Math/Science Teacher(s)*	*0.0360*
60	*Desire to Pursue Traditional Work Role*	*0.0150*
61	*Gender Role Stereotyping*	*-0.0270*
62	*Participation in Youth Aviation Program(s)*	*-0.0390*
63	*Perceived Male Domination of Profession*	*-0.0511*
64	*Peer Pressure to Choose Traditional Work Role*	*-0.0570*
65	*Perception of Failure Rate*	*-0.0721*
66	*Societal Pressure to Choose Traditional Work Role*	*-0.0781*
67.5	*Family Pressure to Choose Traditional Work Role*	*-0.1100*
67.5	*Support of High School Guidance Counselor(s)*	*-0.1100*
69	*Availability of High School Aviation Course(s)*	*-0.1700*
70	Cost of Required Training/Education	-0.7400

T-tests analyses were conducted on those factors for which either the males or females had average ratings of less than -.5 or more than +.5. Those analyzes indicated there were significant differences between the male and female ratings at the .05 level on 20 factors even though both groups felt the 20 factors were positive. The analyses are presented in Table 4. The differences were calculated by subtracting the male mean from the female mean to show the direction of the difference in reference to the female responses.

Table 5 presents a summary of the factors that have a more positive influence on men and women becoming pilots and those that seem to affect both groups equally. Men appear to be influenced most by monetary reward, the technical and scientific nature of the occupation, the military career potential, and the glamour and mystique of flying. Also, men found having same gender teachers and mentors more important than women. Women found factors such as exposure to and desire to choose a non- traditional work role, opposite gender mentors and role models, desire for a challenging career and to prove their personal abilities as more positive factors than men. They also saw possibilities of travel and flight instructor encouragement as more important factors. Although both groups saw cost of training as a negative influence, men were less influenced by the cost of training than women.

Discussion and Implicati ons

This study demonstrated that force-field analysis is a viable technique for identifying factors that could affect the recruitment of people into various occupations. When applied to the role of professional pilot it was able to

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Table 4 . *Factor Differences Between Male and Female Respondents*

Influence Factor	Male Mean	Female Mean	Diff. in Means	T-Value (P-value)
Perceived Potential Income	1.1800	0.9100	-.27	2.132 (.034)
Required High School Math and Science Courses	0.5000	0.1800	-.32	2.984 (.003)
Perceived as a Glamorous Profession	1.2100	0.7800	-.43	3.641 (.000)
Desire to Pursue Non-Traditional Work Role	0.7200	1.3900	.67	-5.040 (.000)
Perceived Technical Nature of Profession	1.5000	1.1500	-.35	2.925 (.004)
Exposure to Science/ Technology at Young Age	1.2000	0.8100	-.39	3.023 (.003)
Opposite Gender Role Model(s)	0.0000	0.6900	.69	-6.695 (.000)
Same Gender Mentor	0.6200	0.3100	-.31	2.758 (.006)
Opposite Gender Mentor	-0.0123	0.8000	.81	-7.955 (.000)
Perceived Travel Benefits	1.2300	1.4900	.26	-2.145 (.033)
Desire for Challenging Career	1.9400	2.3400	.40	-3.463 (.001)
Exposure to Non-Traditional Gender Roles at Young Age	0.0859	0.7800	.69	-6.546 (.000)
Early Exposure to Aviation	1.5500	0.9600	-.59	3.906 (.000)
Desire for a Technical Profession	1.1700	0.8900	-.28	2.304 (.022)
Cost of Required Training/Education	-0.4900	-0.9900	-.50	3.660 (.000)
Peer Support	0.5700	0.8200	.25	-2.302 (.022)
Exposure to Aviation Mystique	0.7200	0.4000	-.32	3.016 (.003)
Support and Encouragement of Flight Instructor(s)	0.9400	1.5600	.62	-5.026 (.000)
Military Career Potential	1.1000	-0.0235	-1.12	7.727 (.000)
Desire to Prove Personal Abilities	1.5200	1.8700	.35	-2.927 (.004)

Note: Difference in means is the male mean subtracted from the female mean.

Table 5 . *Comparison of Influence Factors with Statistically Significant Differences at the .05 Level*

More Positive Influence For Men	More Positive Influence for Women
- Perceived Potential Income	- Desire to Pursue Non-Traditional Work Role
- Required High School Math and Science Courses	- Opposite Gender Role Model(s)
- Perceived as a Glamorous Profession	- Opposite Gender Mentor
- Perceived Technical Nature of Profession	- Perceived Travel Benefits
- Exposure to Science/Technology at Young Age	- Desire for Challenging Career
- Same Gender Mentor	- Exposure to Non-Traditional Gender Roles at Young Age
- Early Exposure to Aviation	- Peer Support
- Desire for a Technical Profession	- Support and Encouragement of Flight Instructor(s)
- Exposure to Aviation Mystique	- Desire to Prove Personal Abilities
- Military Career Potential	

identify factors that have tended to motivate males and females to become professional pilots. Although it also identified some factors that might have a negative influence, it only identified one that might be considered to be a significant negative influence. However, this is probably not a shortcoming of the force-field analysis procedure but a shortcoming of this study. It was not possible to identify a group of people who decided not to become professional pilots. Therefore, the data were gathered from a group of people who became pilots and who therefore personally decided in the past that the positive factors outweighed the negative factors.

The study also indicated that although men and women seem to be affected by the same factors, some are more important to men and some are more important to women. Although people have suggested this in the literature studies have not been available to provide firm information on such differences. The discussion around Table 5 above presents those differences for men and women professional pilots.

The information generated from this study can have a major impact on the ways in which aviation personnel address the shortage of professional pilots. In the past, aviation educators and industry leaders have mainly tried to recruit both men and women at the same time. A new strategy of recruiting men and women separately, especially women, is now starting to emerge in the industry. A better understanding of the impact on career choice of the influence factors identified in this study could improve the effectiveness of both of these recruitment strategies.

By examining the career choice influence factors identified as being common to both men and women, aviation educators and industry leaders should be able to focus their resources on recruitment strategies that will have more appeal to both men and women. However, the greatest increases in the numbers of both female and male pilots would more likely be obtained by developing recruitment strategies that appeal separately to men and to women. To do this, influence factors identified in this study where men and women differed significantly need to be considered in recruitment.

Some of the factors that were identified to be positive and negative influences on career choice in this study are familiar to aviation educators, but many are not. Past recruitment strategies have often revolved around the fun and challenge of flying, the potential income and lifestyle of being a pilot, and the cost of learning to fly. However, past recruitment efforts have not displayed an understanding of many of the other themes identified in this study such as, the importance of role models and mentors, the impact of perceived training requirements, peer support, and the desire for responsibility. To develop more effective recruitment strategies aviation educators need to become better informed about these less understood influence factors.

Literature on general and non-traditional career choice identified many of the same important influence factors as this study. For example, the importance of role models was identified as important in the literature and in this study. Aviation educators and aviation industry members should take note of the existing studies on career choice, along with the information found in this study, to help develop strategies for increasing the number of professional pilots. Intervention strategies suggested by researchers such as Jewett (1996) for providing role models and early exposure to mathematics, science, and technology could be helpful guides for increasing the number of men and women choosing careers as professional pilots.

Many items were also identified as having no or very little influence on professional pilot career choice. Identifying these factors can also be important. Given the limited resources available for recruitment, such information can be useful in discontinuing past practices that may have little influence.

The results of this study have general implications for the recruitment of personnel. They suggest that using force-field analysis it is possible to identify factors that positively and negatively occupational choice. They also suggest that some factors affect men and women differently. This information can be extremely valuable in encouraging people to enter occupations where there are critical shortages. Some examples of how the information might be used are: developing recruitment efforts around factors which influence both men and women, developing separate recruitment efforts for men and women, minimizing recruitment efforts focused on factors not found to be significant, and trying to remove factors that have a negative influence. With knowledge generated from a study of this type, the effectiveness of recruitment efforts can be significantly increased.

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Decision-making Processes in Novice and Expert Airplane Pilots

Edward L. Deitch
Albert K. Wiswell
Virginia Tech at Northern Virginia

Subjects were interviewed about their decision-making processes as they related to four aeronautical decision-making scenarios. Experts exhibited characteristics and themes that differed noticeably from that of the novices. One of the more pertinent differences involved what some writers have referred to as cognitive maps. These mental guides appeared to be used effectively by experts in attempting to cope with problems associated with decision-making scenarios. Novices also appeared to make use of cognitive maps in their decision-making processes. Their maps, however, were primitive in comparison to the experts and resulted in difficulties when attempting to address specific scenarios.

Keywords: Decision-making, Novice, Expert

General Aviation (GA) includes all aviation activities that are not directly related to either the military or the airlines. Both the military and commercial airlines have stressed formal decision-making training in their initial and recurrent pilot training programs. Such has not, however, been the case in GA. Although the Federal Aviation Administration (FAA) has mandated that aeronautical decision-making (ADM) be included in GA training programs, there are few current guidelines regarding the scope of such training. In addition, there is little specific information related to the conditions under which such training could best be delivered.

Judgment errors among GA pilots are well documented (e.g., Jensen and Chappell, 1983; National Transportation Safety Board, 2000). These errors have contributed to numerous accidents, injuries and fatalities. This study reviewed the decision-making processes of expert and novice aviators. It identified differences and suggested activities that could be incorporated into a Private Pilot Ground School (PPGS) course to assist novices in becoming better decision-makers.

The type of decision-making most pertinent to aviation-related activities has been referred to by numerous writers (e.g., Kaempf and Klein, 1994; Stokes, Kemper and Kite, 1997) as *naturalistic decision-making* (NDM). This particular type of decision-making, according to Orasanu and Connolly (1993), is characterized by decisions made under stress and involve ill-structured problems in which the decision-maker must react quickly in a dynamic and uncertain environment.

Problem Statement

There has been little written about decision-making and GA student pilots. Most of the more recent ADM studies (e.g., Driskill, Weissmuller, Quebe & Hand, 1998; Kochan, Jensen & Chubb, 1997; Stokes, Kemper and Kite, 1997) involved subjects with considerably more experience than that of the typical student pilot (under 100 hours of flying time). This study identified the ADM weaknesses of student pilot subjects and the ADM proficiencies of expert pilot subjects.

Two assumptions were made. First, it was assumed that the "expert" pilots were representative of experienced professionals. Second, it was assumed that the ADM written and video scenarios, that were used to obtain data, served as practical surrogates for pre-flight and in-flight experiences of the subjects.

Although most of the ADM literature originates from the discipline of psychology, this study was viewed through the lens of an educator and certified flight instructor. Nevertheless, this study examined some of the cognitive processes as they related to ADM. The primary emphasis of the study was to better understand the thought processes of student and expert subjects and to use the data to help student pilots develop a practical foundation in ADM.

The research question explored the differences in pre-flight and in-flight decision-making processes between novice and expert subjects. The study determined that significant differences did exist. These differences are summarized in Figure 1.

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Figure 1. Expert and Novice ADM Themes and Characteristics

Experts	Novices
Established the Context •identified general framework within which each scenario occurred	Hazardous Attitudes: •Invulnerable •Impulsive • Macho •Tendency to permit "outside factors" to affect ADM processes
Defined the Situation •acquired specific details regarding each of the scenarios	Interpretation of Risks: •formed priorities without much analysis •realization of inexperience but inconsistent application in practice •recognition of few alternatives •hesitant uncertain — often changed their minds
Prioritized Plans and Alternate Plans •consistently prioritized actions and attempted to formulate back-up plans	Emphasis on Rules and Procedures: •FAA •Pilot's Operating Handbook •flight and ground instructors •ATC •procedures acquired through self-directed learning
Recognized and Use of Familiar Experiences •intuitive decisions based on accumulated knowledge and experiences	Recognition of Familiar Conditions: •recognized familiar situations that subjects believed to be analogous to ADM scenarios •made use of relevant ADM experiences to help resolve scenarios.
Assessed Risks •assessed all risks pertinent to the scenarios	Information Acquired to Assess Risks: •purposely limited volume of information acquired to resolve scenarios •quality of information was often superficial or irrelevant

Characteristics (•) are listed under each of the themes

Method

Four student pilot (SP) subjects were selected fom students enrolled in a PPGS course that was taught at Montgomery County Airpark, Gaithersburg, MD. Two preliminary studies were conducted during the Spring and Fall of 2000. During the preliminary studies it was determined that SPs needed to have acquired a minimum of flying time and experiences to be useful participants in the study. The minimum requirements for SPs, therefore, consisted of: a. twenty hours of flight time; b. soloed (subjects had flown an aircraft by themselves); c. currently involved in cross-country flight training; d. had acquired knowledge applicable to ADM scenarios (in PPGS and during flight training). All of the student subjects were males between the ages of twenty-one and thirty-eight.

Four expert pilot (EP) subjects were also selected for inclusion in the study. Criteria for their selection was based on several requirements that included: a. a minimum of five thousand hours of flight time; b. currently working as a professional pilot; c. had worked as a professional pilot in a minimum of two mediums (e.g., flight instructor, charter pilot, airline pilot, etc.). The researcher was fortunate to locate four EPs whose experience and flying time far exceeded these minimums. All of the expert pilots were males between the ages of thirty-six and sixty-two.

The data for the study was acquired through interviews of the subjects. The interviews were based on three ADM written scenarios and one video scenario. The written scenarios were selected from fifty-one ADM scenarios contained in an FAA study (Driskill, Weissmuller, Quebe, Hand and Hunter, 1998). The written scenarios were revised during the pilot studies to include more variables that would, it was assumed, be useful in eliciting additional information fromthe subjects. Two of the written scenarios involved in-flight decision-making. One of the written scenarios involved pre-flight decision-making. The video scenario (FAA, 1991), included both pre-flight and in-flight decision-making segments.

Each of the subjects was presented with the three ADM written scenarios. The first part of each interview consisted of the subject's general reaction to the scenario. A variety of topic areas were compiled by the researcher

into an Interview Guide that was used to help focus the conversation on pertinent issues. The second part of the interview consisted of presenting the subjects with four written alternatives. The subjects were asked to rank order the alternatives and to explain their reasons for ranking the alternatives as they did. An example of one of the scenarios used in the study is presented in Figure 2.

Figure 2. Scenario 3: Presented to Students and Expert Subjects

You are at a small airport with minimal facilities and at the end of your walk around pre-flight, the flaps refuse to retract from 30 degrees. It was a planned two hour flight back to your home airport. The weather, which was good, seems to be deteriorating with higher winds and lower ceilings than were forecast. A friend, who is a student pilot, at your home airport, has scheduled your aircraft for his Private Pilot flight test with the FAA in four hours. An airport attendant (who is not a mechanic) says he has seen this problem before and states that the "limit switch is stuck." There is no Airframe and Powerplant (A&P) mechanic at this airport, but there is an A&P mechanic at an airport 35 miles away. The attendant says he knows where a switch for this exact model aircraft can be quickly picked-up and he could install it. He says he also could reach up through the inspection port and free the switch enough to raise the flaps but cannot guarantee they will work when airborne. You call the flight school and get their answering machine. You are on your own. You decide to:

Rank Order	*Alternative*
1 2 3 4	a. leave the flaps down and fly to the nearby (35 miles) airport and have a certified (A&P) mechanic fix the problem
1 2 3 4	b. have the attendant reset the switch, get the flaps up and fly home.
1 2 3 4	c. have the attendant change the switch, check it out then fly home and have the flight school's mechanic inspect the work
1 2 3 4	d. wait until the flight school can fly an A&P mechanic in and change the switch

The response format for the video scenario was also changed from what had been done during the initial pilot study. The first portion of the video scenario involved pre-flight actions. This was followed by an in-flight section. During the pilot studies, it was determined that stopping the video after each segment (pre-flight and in-flight) and interviewing the subjects about each portion of the video independently, resulted in an increase in the quantity and quality of data.

The data acquired during the interviews was transcribed and coded by the researcher. Open coding, a process that involves fracturing the data, was followed by axial and selective coding as described by several writers (e.g., Strauss and Corbin, 1998; Yin, 1994). The identification of characteristics and general themes began to emerge during that process. The characteristics and themes were subjected to peer review during several *coding seminar* sessions.

The research design sought to establish the pre-flight and in-flight decision-making characteristics and themes of student pilot and expert pilot subjects. The design also sought to make direct comparisons. These comparisons included: a. SP pre-flight with SP in-flight; b. EP pre-flight with EP in-flight; c. SP pre-flight with EP pre-flight; d. SP in-flight with EP in-flight; e. SP in-flight with EP pre-flight and f. SP pre-flight with EP in-flight.

Relating Findings to the Literature

Numerous researchers (e.g., Cannon-Bowers, Salas & Pruitt, 1996; Orasanu and Connolly, 1993; Simon, 1981, etc.), have written about NDM. This type of decision-making is characterized by "real world" conditions in which dynamic environments, time constraints, stress and uncertainty affect one's thought processes. The subjects in this study were presented with scenarios that included such conditions. The extent to which the subjects were able to cope with the issues inherent in the scenarios was dependent on their respective experience levels, training and knowledge of the subjects. Overall, and not surprisingly, the EP subjects were better able to cope with issues included in the scenarios than were the SP subjects. One of the possible explanations for the superior judgment abilities of EPs in naturalistic settings was what some writers (e.g., Craig, 1998; Klein, 1997; Stokes, Kemper & Kite, 1997) have referred to as "recognition-primed decision-making" (RPD).

RPD was described by Klein (1997) as a process in which decision makers used a combination of knowledge, experiences and wisdom to make intuitive judgments. He emphasized that accumulated experiences were important and significant factors in helping make quick and effective decisions. Klein explained that these experiences helped decision makers recognize important "cues" that were used as guides for developing responses to specific problems.

It was apparent that the EP subjects made use of their experiences in addressing the issues inherent in the scenarios presented to them during their interviews.

Another useful explanation for the superior judgment abilities of EPs in naturalistic environments involves the concept of "cognitive maps." Tolman (1948) in his experiments with rats, stated that:

> The stimuli, which are allowed in, are not connected by just simple one-to-one switches to the outgoing responses. Rather, the incoming impulses are usually worked over and elaborated in the central control room into a tentative, cognitive-like map of the environment (p. 191).

Cognitive maps have been used by numerous researchers (e.g., Csanyi, 1993; Laszlo, Artigiani, Combs and Csanyi, 1996) to examine behaviors and to explain the resolution of problems in a variety of settings. Laszlo, et al. defined cognitive maps as:

> ...mental representations of the worlds in which we live. They are built of our individual experiences, recorded as memories and tested against the unceasing demands of reality. These maps, however, do not simply represent the worlds of our experiences in a passive and unchanging way. They are, in fact, dynamic models of the environments in which we carry out our daily lives, and as such determine much of what we expect, and even what we see. Thus, they represent and at the same time participate in the creation of our experience of reality itself (p. 3).

Student subjects in this study appeared to make use of mental maps in their thought processes. The cognitive maps of SP subjects, however, were primitive in comparison to those of the experts. Although the SP subjects attempted to rely on pertinent experiences, their maps were rudimentary and consisted of numerous gaps. Many of these cognitive gaps could have contributed to the presence of several observed characteristics that included; uncertainty, inability to recognize alternatives, an emphasis on rules and procedures and the presence of hazardous attitudes.

In contrast, the cognitive maps of EPs in this study appeared to be significantly more developed. The experts were able to quickly make connections between problems presented in the scenarios and their experiences. These experiences provided them with a more detailed map and enabled them to find alternate routes to a desired end. The result was that they were able to quickly and effectively formulate viable alternatives. For example, one expert pilot, reflecting on an electrical problem that almost resulted in an accident remarked:

> *But you know, you know from your experiences you learn to look for certain things and do certain things. You know, I know if I have a flickering light on a display, I'm gonna look real close at those alternators. Make sure they're charging; make sure the battery is charging.*

When experts were unable, because of time constraints, to rely on their cognitive maps they were quick to rely on another process that some writers (e.g., Jensen, 1995) have referred to as "satisficing." The concept of "satisficing" involves making decisions within the time constraints of a naturalistic environment. It involves choosing a course of action that, while not the absolute best alternative, would not necessarily result in negative consequences and would represent a viable option. During interviews with expert subjects, several related incidents in which a "satisficing" based response was evident.

Student subjects were unable to depend heavily on either cognitive maps or the concept of "satisficing" to resolve problems. Student subjects, therefore, tended to rely on established procedures. In addition, they frequently exhibited *hazardous attitudes* that had the effect of making a bad situation worse.

Diehl, Hwoschinsky, Lawton & Livak (1987) identified five *hazardous attitudes*. They included: a. anti-authority (not willing to comply with rules and regulations); b. impulsiveness (acting quickly without thinking); c. invulnerability (refusing to believe that negative events could occur); d. macho (overestimating one's competencies) and e. resignation (giving up — taking no action to improve a situation). During student subject interviews, three of these attitudes (impulsiveness, invulnerability and macho) were evident on numerous occasions. In addition, SPs demonstrated another dimension that I included as a *hazardous attitude*. That dimension was their tendency to allow "irrelevant factors" to influence their decision-making processes. None of the EP subjects revealed any of the hazardous attitudes during their respective interviews.

Two of the five hazardous attitudes were not observed during interviews with student subjects. None of the SPs displayed *resignation* during their interviews. In addition, the *anti-authority* hazardous attitude was not only absent but, to the contrary, student subjects were concerned about assuring they followed guidelines and procedures

and did not break any rules. This appears to confirm the findings of Dreyfus & Dreyfus (1986) who wrote about one's journey from novice to expert. Dreyfus & Dreyfus stated that this journey consisted of specific stages.

The Dreyfus' termed the first part of this journey as the *novice* stage. The writers stated that this initial level was characterized by learners receiving initial instruction in a particular subject. They also indicated that learners in this stage typically relied on facts and guidelines presented by their instructors without much regard to the context within which the situation (or scenario) occurred. The SP subjects were representative of the *novice* stage of the Dreyfus model. They consistently relied on established guidelines and procedures. In addition, the student subjects often relied on specific lessons that were either taught by their instructors or acquired through independent study.

Findings

There were differences in the decision-making characteristics of expert and student subjects. These differences are depicted in Table 1. The EP subjects in this study exhibited similar ADM thought processes as did experts in previous studies (e.g., Dreyfus and Dreyfus, 1986; Stokes, Kemper and Kite, 1997). They were quick to recognize cues from their experiences to help resolve scenarios. It was apparent that their respective *cognitive maps* served as useful and effective guides. For example, prior to making their "go-no/go" decision, EP subjects exhibited detailed pre-flight planning that included everything from reviewing the legal aspects of a planned flight to the cumulative effects of fatigue and stress. The SP subjects ignored these important pre-flight considerations.

The expert subjects also attempted to place each of the scenarios in its larger context. They frequently asked questions to assure they completely understood the overall framework within which the scenarios occurred.

Table 1. *Differences in Expert and Novice Pre-flight and In-flight Decision-making*

Comparison	Differences in Decision-making Characteristics
SP Pre-flight and In-flight	-Limited number of items to consider while In-flight, but not in Pre-flight -Made Attempts to calm down and take time to assess risks while In-flight, but not in Pre-flight
EP Pre-flight and In-flight	-Sought information only from qualified individuals in Pre-flight ADM -Considered effects of stress and fatigue during Pre-flight ADM
SP and EP Pre-flight	-SPs: inadequate information - adhered to rules and procedures – exhibited Hazardous Attitudes -EPs: Sought information only from qualified individuals – planned diligently (detailed analysis of all pertinent issues)
SP and EP In-flight	SPs: recalled experiences they believed to be helpful – recognized few alternatives – purposely limited number of items to consider EPs: used prior experiences to help resolve problems – prioritized plans and back-up plans
SP In-flight and EP Pre-flight	SPs: hesitant and uncertain - stressed importance of calming down and take time to assess risks EPs: considered effects of stress and fatigue – ignored options that they believed involved excessive risks
SP Pre-flight and EP In-flight	SPs: adhered to rules and procedures – realized their inexperience but nevertheless chose demanding and sometimes dangerous alternatives (hazardous attitudes) EPs: established the general context within which the scenario existed - defined the specific conditions of the scenario – reluctant to depend on others (self-reliant)

In addition, the experts asked numerous questions about each of the scenarios in an attempt to acquire as many specific details as possible.

Student subjects, responding to in-flight decision-making scenarios, frequently attempted to limit the amount of information available for processing. Two SPs remarked that they did not want to be "overloaded" with information. This sometimes resulted in SPs stressing information that was not particularly pertinent while ignoring factors that were relevant. Several of the student subjects also talked about trying to "calm down" while attempting

to resolve in-flight decision-making scenarios and discussed methods (e.g., departing the traffic pattern at an airport) to allow themselves time to determine an appropriate course of action.

Student subjects stressed rules and procedures in their responses to issues related to the scenarios. These rules and procedures emanated from a variety of sources including: a. pilot's operating handbook; b. Air Traffic Control; c. FAA rules and regulations; d. guidelines established by flight and ground instructors and e. procedures and guidelines obtained during self-directed learning. In addition, the student subjects often hesitated in attempting to chose an alternative and frequently changed their minds.

All of the SP subjects, in their responses to decision-making scenarios, demonstrated hazardous attitudes. Even though they seemed to recognize the fact that they were inexperienced, and attempted to abide by rules and guidelines, SP subjects often chose alternatives that involved difficult and sometimes even dangerous options. The student subjects also frequently elected to chose alternatives without acquiring all pertinent information. This could be a result of their incomplete cognitive maps.

Need for Further Research

This study established differences between the ADM characteristics of expert and novice subjects. The study did not, however, result in findings necessarily generalizable to a larger population of pilots or to decision-making in other contexts. Additional research will be required to accomplish that goal. A variety of additional studies could prove beneficial.

A quantitative study, including relatively large numbers of student pilot subjects, could build on the findings of this study. For example, such a study could measure (via. pre-tests and post-tests) the presence of *hazardous attitudes* (or other attributes) among student pilots. Acceptable subjects would be divided into a control group and a treatment group that received ADM training within, for example, the context of a Private Pilot Ground School (PPGS). In addition, it would be interesting to note how those involved in such a study progressed in their respective careers as pilots. Although challenging to conduct, such a longitudinal study could reveal important data related to the value of ADM training received early in one's flying career.

As noted previously, all of the SP subjects had displayed hazardous attitudes in their ADM thought processes. None of the EP subjects displayed such attitudes. Was this due exclusively to the differences in the relative experience levels of the subjects? Additional research will be needed to confirm that assumption and to identify specific training methods that could prove productive in reducing hazardous attitudes. In addition to the hazardous attitudes noted by numerous writers (e.g., Berlin, Gruber, Jensen, Holmes, Lau, Mills & O'Kane, 1982; Diehl, Hwoschinsky, Lawton & Livak, 1987) I included a tendency to rely on *outside factors* (factors that have no relevant bearing on a particular problem) as a hazardous attitude. The extent to which these *outside factors* affect decision-making of novice pilots, and what can be done to eliminate them, remains to be discovered.

The use of simulators, rather than written and video scenarios, could also be useful in obtaining data from subjects. Although ADM studies involving simulators had been done in the past, (e.g., Connolly, 1990; Stokes, Kemper & Kite, 1997) none of the subjects involved student pilots (students who had not earned their private pilot licenses). Providing subjects with ADM scenarios in simulators as student pilots could prove to be useful both to the researcher (in acquiring data) and also to the subjects (whose ADM experiences could result in a more profound and lasting impression).

As stated previously, the student subjects in this study had all soloed and had begun their cross-country flight training. In addition, all of the student subjects had acquired a minimum of twenty hours of flying time and had received flight and ground instruction in subject matter pertinent to the written scenarios. One wonders, however, if the results would have been different had the student pilot subjects been more experienced. For example, would the findings have been different had the student pilot subjects consisted of those who had completed their cross-country training, ground school training and were in the process of preparing for their Private Pilot flight test with the FAA?

The concept of *cognitive maps*, as they relate to expert and novice ADM is another area in need of additional research. The evolution of such maps and methods to assist novices in their development could produce useful data. In addition, it would be interesting to examine individuals who are pre-disposed to developing cognitive maps. Determining the characteristics of such individuals and the basis of their pre-dispositions could yield important insights into helping students acquire the ADM skills of experts.

Two of the student subjects discussed how they had read a variety of publications (e.g., books, magazine articles, etc.) that they assumed had helped them become better decision-makers. These readings were in addition to the required readings related to the PPGS course in which they were enrolled. One of these self-directed learners (SP3) appeared to be more proficient than the other subjects in coping with the scenarios presented in the study. A study involving the role of self-directed learning in the acquisition of ADM skills could prove enlightening. It

would also be interesting to note whether there was a relationship between those who were prone to self-directed learning and those who were predisposed to forming and using cognitive maps. One could also study the relationship and possible correlations of those attributes to the acquisition of ADM competencies.

It would also be interesting to determine whether this research has wider applications. Research involving expert and novice decision-making in naturalistic environments could have many possible applications. For example, one might consider conducting research among fire-fighters or police officers. In addition, one might acquire useful information from expert and novice managers or administrators, in a variety of settings, who find themselves in environments characterized by time constraints, stress and problems that are difficult to define.

Recommendations

The data obtained in this study made it clear that there were notable differences in the pre-flight and in-flight ADM thought processes of expert and novice subjects. Furthermore, the study demonstrated that expert subjects, in naturalistic settings, relied on their cognitive maps to assist them in coping with issues in each of the scenarios. It seemed clear that the student subjects would benefit from training designed to assist them in developing more detailed and comprehensive cognitive maps. The specific components of such training could be based on the research of numerous writers.

For example, several researchers (O'Byrne, Clark and Malakuti, 1997) suggested methods to assist novices in acquiring the skills of experts. Generally, the researchers emphasized that such programs should stress both basic principles and theories as well as opportunities to apply these principles and strategies to realistic and relevant scenarios. Other researchers (Dreyfus and Dreyfus, 1979), in their research related to training pilots to cope with emergency situations, emphasized that effective training must be based on specific contexts. The writers suggested that pilots should be exposed to a large number of relevant scenarios to enhance their abilities to recall appropriate courses of action. Wiggins (1997) stressed that teaching cognitive skills to novice aviators was vital to their development. He stated that such cognitive training could include such activities as protocol analysis (thinking aloud while performing a task) and the analysis of errors (reviewing accident reports). These suggestions could potentially serve as effective cognitive map builders and assist novices in both pre-flight and in-flight ADM.

As previously mentioned, *hazardous attitudes* are well documented in the literature and were apparent in all of the SP subjects involved in this study. Accordingly, a discussion of these attitudes that includes their causes and possible remedies should be included early in the PPGS and could serve as an excellent introduction to the ADM portion of the PPGS. If possible, instructors should also attempt to include scenarios that demonstrate these hazardous attitudes.

Conclusion

Furnishing students with the knowledge necessary to pass an FAA examination has always been the primary focus of PPGSs. A PPGS could also, however, provide students with a unique opportunity to enhance their ADM competencies. By substituting knowledge, in the form of ADM scenarios, for actual experiences, instructors could help students form more extensive and relevant cognitive maps. The enhancement of such maps could prove to be just as important and, perhaps, even more important than any specific topic covered in a PPGS. It is essential, therefore, that instructors consider including ADM training along with relevant scenarios within the context of PPGSs and other ground based, aviation-related courses. It is a pursuit worthy of our time, patience and best efforts.

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Leading the Learning Organization

James R. Johnson
Purdue University Calumet

This paper examines the actions that a leader can take in order to transform an organization into a learning organization. Four leaders of widely diverse organizations were studied. The research indicated that leaders who were successful in implementing the learning organization concept used it as the solution to a business problem, while devoting time and attention to the transformation. The findings have widespread implications for HRD practitioners, adult educators and for future research.

Key words: Leadership, Learning Organizations, Organization Development

The topic of the learning organization has commanded a great deal of attention. Senge's (1990a) writing was an important contribution to the avalanche of literature on the subject. Although the literature base pertaining to learning organizations is expansive, the vast majority of the writing is descriptive in nature. Few authors and researchers have offered suggestions to senior managers on how to transform their organization into a learning organization.

The purpose of this research was to capture the specific actions of those leaders who have successfully implemented the learning organization concept. It addresses the question of how senior managers and chief executive officers (CEOs) might apply specific leadership actions and behaviors in order to foster organizational learning. Argyris (1992), commenting on barriers to organizational learning, stated that:

> researchers did not focus upon producing actionable knowledge on how to reduce or lower these barriers. In those cases where they did, the advice was either disconnected from the world of practice, or, when examined carefully, the advice could actually strengthen the very barriers that were supposed to be overcome. (p. 1)

Theoretical Framework

Two bodies of literature provide the theoretical framework for this research: the learning organization literature is relatively new, while the leadership literature is vast. At the intersection of the two lies very little, and provides the subject of this research.

The Learning Organization

Watkins and Marsick (1996) wrote that three frameworks are useful for examining the 22 learning organizations contained in their edited work, *In Action: Creating the Learning Organization*. These three frameworks, from the simplest to the most complex, are that of:

1. Watkins and Marsick (1993);
2. Pedlar, Burgoyne, and Boydell (1991); and
3. Senge (1990a).

Watkins and Marsick (1993) offered the simplest definition when they defined a learning organization as one "that learns continuously and transforms itself" (p. 8). Pedlar et al. (1991) defined the learning company as "an organization that facilitates the learning of all of its members *and* continuously transforms itself in order to meet its strategic goals" (p. 1). Senge's (1990a) definition is the most complex. He defined the learning organization as one "where people continuously expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p. 7).

Although these frameworks capture the fundamentals of the learning organization, two others deserve note. Marquardt (1996) defined the learning organization as one "which learns powerfully and collectively and is continuously transforming itself to better collect, manage, and use knowledge for corporate success" (p. 80). Garvin (1993) described the learning organization as one "skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights" (p. 80).

Widely cited in the literature were such diverse organizations as Shell Oil, Motorola, TRW Space and Defense Group (Redding & Catalanallo, 1994), Arthur Andersen, Caterair International, Royal Bank of Canada (Marquardt,

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1996), Johnsonville Foods, and Chaparral Steel (Watkins & Marsick, 1993). All of these organizations have achieved the transformation to learning organization status.

Leadership

Heilbrun (1994) pointed out that rigorous study of leadership is divided into three stages. The earliest stage attempted to identify traits of leaders. The next stage focused on the behavior of leaders, and the third and current stage centers on the interaction between leaders and those they lead. Heilbrun (1994) went on to say that the future of leadership studies might lie in the understanding that the most significant aspects of leadership are far beyond the ability to study them.

Many hundreds or even thousands of definitions of leadership exist, ranging from the abstract to the simple. Locke, Kirkpatrick, Wheeler, Schneider, Niles, Goldstein, Welsh, & Chah, (1991) offered one definition: "We define leadership as the process of inducing others to take action toward a common goal" (p. 2). Bethel (1990) proposed a more precise definition of leadership as simply "influencing others" (p. 6).

However, a more current definition of leadership was provided by Senge (1996), who defined leaders as people "who are genuinely committed to deep change in themselves and in their organizations" (p. 36). The most useful definition, though, was provided by Bennis (1984), who noted that "leaders are people who do the right things; managers are people who do things right" (p. 19). This separation of leaders from managers takes on great importance. Bennis and Nanus (1985) clarified this when they wrote that the "problem with many organizations, and especially the ones that are failing, is that they tend to be overmanaged and underled" (p. 21).

Although the discussion of leadership is important as a foundation for this research, the focus here is on leadership actions that transform organizations. Burns (1978) differentiated between transactional and transforming leadership. Transforming leadership, according to Burns, is the type of leadership that raises both leader and follower to "higher levels of motivation and morality" (p. 20). This idea was further amplified (Locke et al., 1993) to define transformational leadership as a type of leadership that changes organizations rather than maintaining them in their current state.

Bennis (1994) wrote that leaders are, by definition, "innovators" (p. 143). They must envision the desired state of an organization and take required action to enable the organization to achieve that state. Kotter (1996) identified eight stages of leading change: the first four involve reducing the forces that lead to the status quo, the middle stages introduce change, and the last steps incorporate the changed state into the fiber of the organization. The most detailed view of transformational leadership comes fro m Tichy and Devanna (1986). They wrote that transformational leaders revitalize organizations by recognizing the need for change, creating the vision for change, and enlisting the organization in the change process.

Leadership and the Learning Organization

At the intersection of the broad concept of leadership and the "murky" notion of the learning organization (Johnson, 1998, p. 148), there is little to provide specific guidance. Pagonis (1992) wrote that this must be accomplished "through rigorous and systematic organizational development" (p. 118). Senge (1993) posited that there is no formula or seminar for creating learning organizations.

Redding and Catalanello (1994) recommended that pockets of learning can form within an organization and may be shared with the rest of the organization. Senge (1990b) proposed that leaders need to be responsible for learning by building learning organizations, and Bennis (1984) wrote that leaders must value learning. Bennis and Nanus (1985) argued that leaders become expert at learning in the context of the organization, and Argyris (1991) insisted that leaders must learn how to learn. Senge (1990b) and others have stated that leaders must assume the role of teacher (Denton & Wisdom, 1991) in learning organizations.

Marquardt (1996) proposed what is possibly the most specific series of steps for leaders. He provided the "keys to success" along with the steps and strategies to achieve that positive outcome. According to Marquardt, the "keys" (p. 211) to a successful transformation to a learning organization are:

1. Establish a strong sense of urgency,
2. Form a coalition,
3. Create a vision,
4. Communicate the vision,
5. Remove obstacles,
6. Find short-term wins,
7. Consolidate progress and continue movement, and
8. Anchor change to the culture.

Three Emergent Themes. Three areas emerge from the literature base that merit further consideration: visioning, empowerment, and the leader's role in learning (Johnson, 1998; Senge, 1993). The ability to create a collective vision of the future with other members of the organization (Watkins & Marsick, 1993) appears to be a crucial action for leaders of learning organizations. Communicating the common vision to the organization (Wheatley, 1992) seems to be of collateral importance. Marquardt and Reynolds (1994) referred to the information flow throughout the worldwide organization. Senge (1990a) called this the "purpose story" (p. 353) or the "overarching explanation of why they do what they do." He described the difference between the current and the desired state as building "creative tension" (Senge, 1990a, p. 357), or the force that can move followers toward the vision by allowing them to share it as they understand their current reality.

A second theme that emerged from the literature deals with empowerment. Marsick (1994) defined empowerment as "interactive, mutual decision making about work challenges in which power for work outcomes is truly shared" (p. 19). Linda Honold, formerly director of Member Development at Johnsonville Foods (Watkins & Marsick, 1993), was quoted as saying "the learning organization is the result of empowerment" (p. 208).

A third theme derived from the literature involves the leader's role in learning. Argyris (1993) called it the competence of "leading-learning" (p. 5). Marquardt and Reynolds (1994) indicated that the leader must model continuous learning. Barrow and McLaughlin (1992) indicated that this new kind of leadership would, by necessity, tie learning to strategy. Johnson (1998) provided a "Learning Organisation Leadership Model" (p. 146) that contains an "alignment" of the three leadership themes and Woolner's (1995) five-stage model of the learning organization. In this model, he essentially posits that the three leadership qualities, when blended in a specific fashion, allow an organization to move through the five stages as identified by Woolner (1995). This blending of qualities, according to the model, allows the organization to reach the ultimate goal as a learning organization.

Research Design and Methodology

Creswell (1998) referred to research design as the entire research process, not simply the methods. Yin (1989) similarly offered that the research design is a plan of action for getting from the original set of questions to the narrative containing the findings and conclusions. Merriam and Simpson (1995) wrote that the use of case-study research is appropriate when a gap exists in the knowledge base. The design of this research effort was a qualitative case study, and the unit of analysis was four individual leaders who had engaged in the process of transforming an organization into a learning organization. Stake (1995) indicated that the case is "a specific, a complex, functioning thing" (p. 2). In this study, in an attempt to understand this complex functioning, several selection criteria were used to select the individuals or the cases. First, there needed to be a commitment within the organization to become a learning organization. Second, the organization had to be cited in the current learning organization literature or must have as a written strategic business objective the learning organization outcome. Table 1 presents the demographics of the four research cases.

Table 1. *Demographics of Research Cases*

Demographic	Leader A	Leader B	Leader C	Leader D
Type of Org.	For profit	Government	Nonprofit	For profit
Industry	Manufacturing	Government	Secondary	High agency education technology
Location in U.S.	Midwest	East Coast	Midwest	East Coast
Gender	Male	Female	Female	Male
No. of Employees	6,000	18,000	50	30,000
Education level	Bachelor degree	Masters degree	Doctorate	Doctorate
Stage of initiative	Completed	Completed	Ongoing	Early

Data were collected using semi-structured interviews, document and archived record reviews, and researcher observations. To insure validity, like questions were asked of each respondent (Merriam, 1988) and at least two

other sources were interviewed within each leader's organization. Interviews were recorded and later transcribed verbatim by the researcher. Interview transcripts were coded and analyzed by the researcher to determine themes. The 'Data Analysis Spiral' (Creswell, 1998, p. 143) was utilized as the basis for data analysis. In order to minimize the effects of researcher bias, two trusted peers continually provided feedback during the research process.

Guiding this study were three research questions:

1. What precipitated the decision to transform the organization into a learning organization?
2. Why is the learning organization concept chosen as a desired outcome?
3. What specific actions by leaders enable them to develop a learning organization?

Research Findings

Results drawn from the data are organized and presented according to research question and are summarized in Table 2. Research Question 1 asked, "What precipitated the decision to transform the organization into a learning organization?" The data showed that two factors contributed to the decision to embark on a learning organization initiative. The first was a clearly delineated business problem. One of the leaders typified this when he indicated that:

> Basically, what it was is we had just suffered through a year in which we had lost $50 million. And we were on the blocks in 1992 when [the former CEO] was still in charge. He was pretty disappointed with us and we were always hearing rumors that we were going to be gone. And what we realized we needed to do was we needed to do a couple of things. We needed new technology. We had to have the design and release of our own parts. We had basically just been an assembler of parts that were designed by engineers. So we needed our own technology. We needed to become full service, be responsible for our own design and responsibility; we had to go global.

The second contributing factor reported was that learning was either implicitly or explicitly stated in the charter of the organization. Another leader amplified this by saying:

> I think there was always a grounding that this was a place of learning, this is a community that needs to reflect on what is known, that needs to create feedback mechanisms to insure that learning is known and mutually shared, that needs to develop a collective sense of ownership, that needs to be grounded because of the feeling that the stronger and clearer our beliefs and mission were, the more freedom people would have to implement and act [on] those in their own way. We all always wanted, I think, a sense of adaptation and flexibility.

The common theme discovered was that the leader must clearly identify the need for increased learning, while articulating this need to the organization in a way that makes sense. Identification of this need may take many forms; economic survival, or a core function of the organization. Regardless, this research showed that a logical rationale must underlie the inception of the learning organization initiative. This notion supports many of the tenets found in the leadership literature but was best presented by Tichy and Devanna (1986) when they wrote that leaders must recognize the need for change.

Research Question 2 asked, "Why is the learning organization concept chosen as a desired outcome?" The research indicated three reasons. First, the learning organization concept was chosen as a solution to a real business problem. It can not be viewed as simply a "quick fix or panacea" (Senge et al., 1994, p. xii). One leader described this when he said,

> And it was shortly thereafter that we needed to tap our biggest problem at that time, which was launching new products. And we had some launches going on at that time that were very difficult. They just devoured the whole division. And we said, we've got to learn from these things because we are going to be launching a lot of new products in the future. We can't go through this pain. So we put together a cross-functional team involved with launching new products. And they immediately decided that they needed to expand to incorporate more of the other departments that are involved in the launch of a new product.

Second, the leaders chose the learning organization concept because it fit their own mental models. All four leaders chose this as an organizational outcome because it fit with their previous life experience. One leader provided an example when she said:

> We didn't think about being a learning organization. And that is why I don't believe it was a conscious decision to be a learning organization. I think people maybe read about it and maybe people decide they want to do it, but certainly in our case, it didn't evolve that way. There was an interest in learning and our organization was about learning and the agency was about learning. It was about the agency learning.

Third, none of the leaders studied utilized a specific model or framework to guide them in their journey. Such

an abstract concept as the learning organization appeared to be difficult for the organizations to understand.

Research Question 3 asked, "What specific actions by leaders enable them to develop a learning organization?" This question rested at the center of this research project. The research uncovered several effective leadership actions. First is that they paid attention themselves to the learning organization initiative. One of the interviewees said, "What [he] did was he basically endorsed it, made sure it was part of the strategic initiative so he gave it visibility, and then he attended as many dialogue sessions or team learning project meetings as he possibly could." This supports the importance of "leading-learning," proposed by Johnson (1998) in the Learning Organization Leadership Model and drawn from Argyris (1991, 1992, 1993).

Second, and allied to the importance of personal attention by the leader, was the importance of the leaders insisting that others in the organization pay attention to the initiative. The idea that everyone in the organization must pay attention to learning ran through the data. In practice, this may mean the inclusion of organizational learning as a strategic planning initiative. One leader clarified this when she reported:

> We began a formal strategic planning process, which created a team of stakeholders where you have to craft a belief statement--and your mission, and your objectives, and strategies, and action plans. And this is a new way of thinking for the organization. We were brand new, and we had all come together and [been] drawn in some way to a mission and a vision of what was articulated and drawn to a sense of possibility that every person brought to the institution. Table 2 summarizes the results of this research.

Table 2. *Summary of Research Findings*

Research Question	Leader A	Leader B	Leader C	Leader D
1. Precipitating factors	Survival	Charter	Core Product	Survival
2. Why chosen	Fit previous experience	No conscious decision	No conscious decision	Knowledge capital
3. Leadership actions	Paid attention Made others risk	Visioning Encouraged others	Naming things Paid attention Rewards	CEO attention Paid attention
Additional researcher observations	Position power Shared issues	No position power Leadership issues	Position power Contextual	No position power Contextual

Summary and Discussion

By studying four leaders who embarked on learning organization initiatives, this research indicated that:

1. The decision to develop a learning organization should be based on a clearly defined business need, or business problem, or was stated in the charter of the organization.
2. The learning organization notion must be analyzed and determined to be the rational solution to this business need or problem. Even though none of the leaders used a specific framework, the learning organization concept must fit their own mental model.
3. Leaders need to pay attention to this initiative, ensure that others in the organization are focused on it, and institute an appropriate reward system. The attention and focus required may take place in the strategic planning process.

Several additional findings were uncovered by this research:

1. The process of crafting a learning organization cannot be initiated or sustained by those who do not hold a position of power within an organization. For example, it is doubtful that human resource development directors can successfully begin this process. Top business leadership must initiate or at least fully sanction this effort. This supported by Watkins and Marsick (1993) when they asserted that "You cannot build a learning organization from within the training department" (p. xvii). Leaders must then make others aware of the need for carefully chosen strategic initiatives. The initiative must be tied to strategy in order for it to be successful. Successful implementation of the learning-organization concept is dependent upon practitioners who reside in positions of organizational influence or obtain clear support from those in positions of power. This research indicates that successful implementa-

tion cannot be achieved without access to positions of power and influence. Thus, leaders must devote personal attention to the initiative, and others in the organization need to also focus attention on it.

2. Leaders need to have the tools for analyzing problems and selecting appropriate solutions. Widely accepted are tools that described a rational decision-making process that includes establishing goals and objectives, identifying problems, developing alternatives, choosing among alternatives, and evaluating outcomes. Leaders need to be skilled at analyzing business situations, diagnosing the causal factors, then selecting appropriate interventions, such as the learning organization.

3. Once it is deemed appropriate for the situation, leaders need to be skilled in communicating the learning organization concept in a manner that fits as a solution to the business problem, while motivating others in the organization. People in the organization must be able to clearly see this fit. Kepner and Tregoe (1997) wrote that:

> People do not resist practical and useful ideas that promise to be supportive of their own best interests. People do resist obscure theorizing that has no apparent helpful reference to their lives, threatens them because of their strangeness, and must be taken widely on faith. (p. 221)

4. Learning about learning is important; people need to know more about their own and the organization's learning processes.

Implications for Future Research

This research looked closely at four organizational leaders who had embraced the learning-organization concept and offered valuable insight into this phenomenon. However, more research is needed to expand the literature base. Additional case studies of both successful and unsuccessful learning organization implementations can provide further insight into this nebulous arena. Several research questions that pertain to this topic need to be addressed:

1. What types of data can indicate the need for increased learning in an organization?
2. In what ways can increased organizational learning provide the solution to this delineated problem?
3. How can leaders successfully engage the members of an organization in this initiative?
4. How can successful organizational learning be measured?

Findings from these research initiatives then need to be empirically tested and confirmed through quantitative methods. In some ways, this research indicates that theorists are working at a level that is too abstract for practitioner leaders to comprehend and utilize. A clear model or framework must be developed that will allow practitioners and adult educators to more fully understand the learning organization. This model needs to answer the dual questions: "What exactly is the learning organization?" and "What specifically must I do as a leader in order to implement it?" In addition, methods need to be developed that will allow for the translation of organizational performance measures into learning\ outcomes.

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An Examination of Psychometric Properties of Chinese Version of the Dimensions of Learning Organization Questionnaire (DLOQ) in Taiwanese Context

Bella Ya-Hui Lien
National Chung Cheng University, Chia-Yi, Taiwan

Baiyin Yang
University of Minnesota

Mingfei Li
Dalian University of Technology, Dalian, China

This paper reports a study designed to examine psychometric properties of Chinese version of the Dimensions of Learning Organization Questionnaire (DLOQ) instrument. The instrument was translated into Chinese by a team of researchers and data was sought from organizations in Taiwan. The results of psychometric analyses revealed that the Chinese version of the DLOQ demonstrated reasonable reliability estimate and seven-dimension factor structure was stable in Taiwanese contexts. The evidence of predictive validity was obtained as the seven dimensions of learning could successfully predict different types of organization and had statistically significant correlation with perceptual measures of organizational performance.

Keywords: Learning Organization, International HRD, Organizational Performance

Learning organization is one of the key concepts in the field of human resource development. Although this concept has been introduced in many Asian countries, few empirical studies have been conducted to examine the validity of such concept in Asian contexts. Especially in Taiwan, through the translation of Senge's (1994) *The Fifth Discipline*, companies fascinate about the concept of learning organizations. The more theoretical advantages of the learning organizations were discussed in the practice and scholars (Hong & Chang, 1998; Yang & Hu, 1994; Sun, 1995), the more empirical study was needed (Chou, 2000; Li, 2001; Guan,1999; Guan, 2001). The following questions were raised the attention among the practitioners and scholars: What are the indicators or characteristics of a learning organization? To what extend, a learning organization can be measured in terms of the organizational performance? To what extend, Taiwanese companies can adapt the concept of learning organizations and apply to their situation and even create more benefits?

The purpose of study is to translate, validate and adapt an English version of a scale measuring the characteristics of learning organization so that it can be used in Chinese-speaking population. The Dimension of Learning Organization (DLOQ) was used to test if the concept of learning organization and proposed dimensions by the authors are valid in Taiwanese context.

The Dimensions of Learning Organization Questionnaire (DLOQ) was developed by Watkins and Marsick (1997) and have been widely used to assess the characteristics of learning organization. This scale includes 43 items assessing learning activities in the organization. Six (6) additional items were included to measure Knowledge Performance and another six (6) items were used to assess Financial Performance. The knowledge performance was defined as enhancement of products and services because of learning and knowledge capacity; and financial performance was defined as the state of financial health and resources available for growth. A number of studies have already examined psychometric properties of the DLOQ in terms of its reliability and validity (Watkins, Selden, Marsick, 1997; Watkins, Yang, Marsick, 1997; Yang, Watkins, Marsick, 1998). Ellinger, Ellinger, Yang and Howton (2000) examined the association between measures included in the DLOQ and several objective measures of firm financial performance. It was reported that more than 10% of variance in firm the financial indicators could be explained by seven dimensions of leaning organization measured on the DLOQ. The DLOQ has been translated and used in different cultural contexts. It has been used in Malaysian organizations (Sta. Maria & Watkins, 2001). It was found that the dimensions of learning organization and concerns about the innovation together explained 36%

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of the variance in the use of innovation. Hernandez (2000) reported findings from translation, validation and adaptation study of the DLOQ in Latin American context. It was found that the Spanish version of the instrument was a reliable and valid instrument.

Theoretical Framework

The theoretical foundation for this study is the Watkins and Marsick conceptualization of the learning organization (1993, 1996, 1999). They define the learning organization as one that captures, shares, and uses knowledge to change the way the organization responds to challenges. They further suggest that the design of learning organization depends on seven complimentary action imperatives: (1) create continuous learning opportunities (*Continuous Learning*); (2) promote inquiry and dialogue (*Dialogue and Inquiry*); (3) encourage collaboration and team learning (*Team Learning*); (4) empower people toward a collective vision (*Empowerment*); (5) establish systems to capture and share learning (*Embedded System*); (6) connect the organization to its environment (*System Connection*); and (7) provide strategic leadership for learning (*Strategic Leadership*).

Research Questions

This study sought to examine psychometric properties of the Chinese version of the DLOQ in Taiwanese context. Specifically, this study addresses the following research questions:

1. Is the Chinese version of the DLOQ a reliable instrument in terms of internal consistency for the proposed dimensions of learning organization?
2. Is the seven-dimension framework of learning organization proposed by Watkins and Marsick applicable to Taiwanese organizations?
3. Does the Chinese version of the DLOQ demonstrate predictive validity in terms of discriminating different types of organizations in Taiwanese contexts?
4. To what extent that perceived measures of organizational performance can be explained by learning characteristics measured by the Chinese version of the DLOQ?

Methods

Translation

The English version of the DLOQ (Watkins & Marsick, 1997) was first translated into Chinese by three researchers. Two of them conducted initial translation. Both of the researchers were native Chinese and they all obtained graduate degrees of HRD in American universities. One of them has returned to China as a faculty member in a business school, and the other is currently teaching in an American university. In this initial translation process, efforts were made to use common Chinese equivalents for all words and phrases and to translate the original text as close as possible. This initial translation was done independently. After each of the researchers has finished the first translation, each of them critiqued and evaluated the other's work. It was found that two researchers shared same or very close translations for the majority of the instrument. The consensus part was kept, and the different areas were debated and modified until a consensus was reached. Very few areas were found too difficult to reach the consensus and they tend to be words or phrases with particular meanings that have different usages in Chinese. For example, there is no exact word or phrase that represents the word of "vision." In fact, there are two common usages in research and business world. One implies "long-term picture" and the other refers to "shared long-term goals." It was decided to use the later one after consulting with other Chinese HRD scholars and practitioners.

A third researcher, whose native language is Chinese, served as an independent judge for the previous translations. The person is on faculty in a Taiwanese university and has obtained graduate degree of HRD from an American university. Due to the context differences between Mainland China and Taiwan, the habitual usage of the Chinese language in words or phases was slightly different between two places. However, two other Taiwanese HR professors, who both graduated from the American universities, were invited to confirm the minor changes between the simplified Chinese version and the traditional Chinese version. With slightly modification of several specific words or phases, the traditional Chinese version of DLOQ was distributed for Taiwanese organizations.

Sample

After contact several Taiwanese companies, five medium to large size private corporation, which are known or promoted the learning organization concept, were invited to participant this study. Two of them were highly reputed finance/insurance companies, three of them were considered as high-tech companies. With the full response rate, a total of 679 subjects consist of a random sample from multiple organizations. Three hundred and forty (340) subjects out of all six hundred and seventy-nine (679) subjects were randomly selected from the two finance/insurance companies. Most of the subjects are on the management and administration position, others are sales. In addition, three hundred and thirty-nine (339) subjects out if six hundred and seventy-nine (679) subjects were randomly selected from the three high-tech companies. Most subjects selected from the high-tech companies are both include management and non-management (technical/professional).

Data Analysis

To address the first research question, item analysis procedure was used to assess the internal consistency for each of seven proposed dimensions of learning organization in a different context. Each of the items included in the DLOQ was examine in terms of its correlation with proposed dimension. Cronbach's coefficient alpha was used to assess the reliability of the scale.

Confirmatory factor analysis (CFA) was utilized to determine the dimensionality and factor structure of the Chinese version of the DLOQ. The CFA was conducted with LISREL 8 program (Jöreskog & Sörbom, 1989, 1993a, 1993b). CFA is a statistical procedure that examines the construct validity of an instrument with pre-specified dimensions and associated measurement items. In this study, we are particularly interested in assessing whether the seven-dimension structure proposed in the DLOQ constitutes an adequate measurement model for the learning organization concept in Taiwanese context. Yang, Watkins and Marsick (2000) conducted an extensive series of exploratory and confirmatory factor analysis and found that a reduced 21-item measurement model yielded superior fit indices than the original 43-item model. Consequently, two measurement models were examined to assess the adequacy of seven-dimension factor structure of the DLOQ in the new context: one for all 43 learning organization items and another for the reduced set of 21 items.

Discriminant analysis was used to assess the extent to which the Chinese version of the DLOQ could be used to successfully classify different types of organizations. It was reasoned that different type organizations could be predicted from the measures in the DLOQ because of their different backgrounds and emphasis in learning activity. Predictive discriminant analysis (PDA) was used to predict group memberships based on a linear combination of set of predictors (Huberty, 1994). We reasoned that the predictive validity is evident for the measures of learning organization when they can be used to predict different types of organizations. In the current case, two major types of organizations were included, finance/insurance and high-tech companies.

In answer fourth research question, canonical correlation was selected to assess the association between dimensions of the learning organization and perceptual measures of firm performance. This is a technique for examining the association between two sets of variables (Stevens, 1996). The underlying principle is to develop a linear combination of each set of variables (both dependent and independent variables) in a manner that maximizes the correlation between the two sets. The canonical analysis was conducted by MANOVA procedure using SPSS program (Norusis & SPSS Inc., 1990).

Results

Estimating Reliability

Table 1 presents a comparison of the reliability estimates of the DLOQ among different studies. Cronbach's coefficient alpha was used to estimate the reliability for the measures included in the DLOQ. The table also reports corresponding estimates in other studies. In all but two subscales, the reliability estimate was comparable with previous studies conducted in America and Colombia. Three subscales, *Continuous Learning, Empowerment* and *Embedded System*, had relatively low internal consistency. A careful examination of the item analysis results revealed that each of these three subscales was crippled by one measurement item. Item 5, "In my organization, people are given time to support learning," had relative low item-total correlation. This might be caused by the fact that this item implies slight different meaning in the Chinese version. The Chinese version might have caused the respondents to perceive as to "be given learning time" rather than to "be given time to support learning."

Consequently, the respondents might have viewed this question as a reflection of reward rather than something indicating organization's effort to create continuous learning opportunities for employees. Therefore further modification of item 5 is needed in future instrument refinement. Nevertheless, the coefficient alpha for the subscale of "*Continuous Learning*" has reached .81 when item 5 was removed from this subscale.

Although the reliability estimate for "*Empowerment*" (α = .75) was somewhat lower than those revealed in other studies, it reached an acceptable level (α = .82) when item 29 was excluded from the scale. Item 29 was stated as: "My organization give people control over the resources they need to accomplish their work." A careful re-examination of the Chinese translation failed to reveal any linguistic mismatch with the original English version. Special attention needs to be paid to monitor the performance of this item in future study.

Table 1. *Reliability Estimates for the DLOQ Measures*

Dimensions	America		Colombia	Taiwan
	Yang et al. (N = 469)	Ellinger et al. (N = 208)	Hernandez (N = 906)	Current Study (N = 679)
Continuous Learning	.79	.81	.80	.72
Inquiry & Dialogue	.85	.86	.81	.89
Team Learning	.84	.85	.79	.86
Empowerment	.75	.84	.81	.75
Embedded System	.80	.85	.81	.71
System Connection	.82	.87	.80	.89
Provide Leadership	.86	.89	.84	.91
Knowledge Performance	.74	.80	.82	.87
Financial Performance	.71	.75	na	.89

The reliability estimate for "*Embedded System*" in this study (α = .71) was significantly lower than those in other studies (ranging from .80 to .85). Item 24, "My organization makes its lessons available to all employees," was the one that contributed the decreased internal consistency. The coefficient alpha reached slightly higher level (α = .75) when item 24 was deleted from the item analysis. No obvious linguistic difference was found in examining the English and Chinese versions of this item and other items included in this subscale. This unexpected performance of item 24 in Taiwanese context might be explained by the influence of traditional Chinese culture. "Face-saving" tends to be very important in the Chinese society (Earley, 1997). Thus it is quite rare for a formal organization to openly admit any lessons because such action implies some mistakes or wrong doing. The fact of relative low internal consistency for the measures of "*Embedded System*" in a Chinese context might also be explained by different managerial approaches between the West and the East. Yang and Zhang (2001) contend that Western managerial emphasis is placed on system and structure of the organization, and that the Eastern managerial emphasis tends to target on the human side of organization (i.e., process and practice). Consequently, measures of "*Embedded System*" developed in a Western culture might be less consistent when they were used in an Eastern context. Although few subscales tend to demonstrate less desirable reliability estimates, none of the reliability estimate was below .70 and most of them have shown acceptable reliability estimates.

Assessing Factor Structure

Table 2 presents the fit indices for the two measurement models as the results of confirmatory factor analysis. Six criterion indices were chosen to evaluate the fit between the proposed measurement model and that generated from the sample. The indices selected were the traditional chi-square (χ^2) test, Jöreskog and Sörbom's (1989) goodness of fit index (GFI) and goodness of fit index adjusted for degree of freedom (AGFI), Bentler's (1990) comparative fit index (CFI), Bentler and Bonett's (1980) non-normed fit index (NNFI), Steiger's (1990) root mean square error of approximation (RMSEA) and Jöreskog and Sörbom's (1989) root mean square residual (RMR). The GFI and AGFI reflect the proportion of joint amount of data variance and covariance that can be explained by the measurement model being tested. The NNFI is a relative fit index that compares the model being tested to a baseline model (null model), taking into account the degrees of freedom. The CFI indicates the degree of fit between the hypothesized and null measurement models. The RMR is a measure of the average of the fitted residuals. The RMSEA represents a real advance in the evaluation of model fit from both a statistical and a conceptual viewpoint. Browne and Cudeck (1993) argue that because theoretical models are at best approximations of reality, the null hypothesis for any measurement/structural equation model (i.e., the conventional chi-square test that the data fits the

model perfectly) will rarely be true. Rather than testing the null hypothesis of *exact fit* between the covariance matrix of sample and that of model for population, RMSEA establishes a hypothesis of *close fit* between the model and population. RMSEA values of .05 or less indicate a very close fit between sample and theoretical model, accounting for degrees of freedom. Values less than .08 reflect reasonably well fitting models (Browne & Cudeck, 1993).

Table 2. *Fit Indices for Measurement Models of the DLOQ*

Fit Index	Full 43 Items	Reduced 21 Items
χ^2	4128.69	830.21
df	839	168
χ^2/df	4.92	4.94
RMSEA	.076	.076
RMR	.046	.042
GFI	.74	.89
AGFI	.70	.85
NNFI	.85	.92
CFI	.86	.93

The CFA results for the Chinese version of the DLOQ offered further evidence for the dimensionality of learning organization proposed by the theorists. Although the seven-dimension factor structure with 43 items fitted the data moderately well, reduced 21irtems of the same factor structure fitted the data reasonably well. Nearly 90% of item variance and covariance was explained by the seven-dimension factor structure (GFI = .89). Both non-normed fit index (.92) and comparative fit index (.93) were above .90, a critical level that has been normally regarded as an indication of good mode-data fit. Furthermore, RMR and RMSEA have been reasonably low (RMR < .05 and RMSEA < .08) and that suggested overall fit between the proposed seven-dimension model and the data. In sum, the seven-dimension framework of learning organization proposed by Watkins and Marsick has demonstrated its applicability to Taiwanese organizations when their learning activities were measured by the Chinese version of the DLOQ.

Determining Predictive Validity

Predictive validity is the extent to which an instrument can successfully predict criterion measurement (Crocker & Algina, 1986). It was reasoned that the predictive validity would be evident if measures on the DLOQ could successfully predict different types of organization and organizational performance. Table 3 reports the prediction results for two organizations based on seven dimensions of learning organization measured on the Chinese version of the DLOQ. Prior probabilities were set at the proportions of two types of organizations. The results indicate that 63.9% of all participants were correctly classified as belong to either finance/insurance or high-tech organizations.

Table 3. *Classification for Different Types of Organization Based on the DLOQ*

Actual Group Membership	Number of Participants	Predict Group Membership	
		Finance/Insurance	High-Tech
Finance/Insurance	340	64.7%(220)	35.3%(120)
High-Tech	339	36.9%(125)	63.1%(214)
Percent classified correctly: 63.9%			

Note: Numbers of participants are shown in brackets.

To further assess the predictive power of the seven dimensions of learning organization measured on the Chinese version of the DLOQ, we evaluated the effectiveness of the prediction by the discriminant function based on a formula suggested by Huberty (1994, pp. 103-106). For the current prediction results, we obtained that the standard normal statistic is $z = 7.25$ ($p < .001$), which clearly indicates a better-than-chance results. In other words, by using a classification rule of the discriminant function based on the seven dimension of learning organization, significant fewer errors would be made than if classification were done by chance. The above results suggest that the Chinese version of the DLOQ has demonstrated a strong predictive power in classifying different types of organizations.

The second type of predictive validity evidence was found when a canonical correlation analysis was conducted where the perceptual measures of organizational performance were treated as a set of dependent variables and seven dimensions of learning organizations were put as predictors. Table 4 shows the results of the canonical correlation analysis and demonstrates the overall effects of the seven dimensions of learning organization on organizational performance.

Table 4. *Multivariate Tests of Significance for Canonical Correlation*

Test Name	Value	Approx. F	Hypoth. df	Error df	Sig of F.	Effect Size
Pillais	.433	26.260	14	1342	.000	.216
Hotellings	.742	35.421	14	1338	.000	.270
Wilks	.572	30.866	14	1340	.000	.244
Roys	.422					

The multivariate tests for the canonical correlation analysis indicate a statistically significant relationship between the seven dimensions of learning organization and the two perceptual measures of organizational performance ($p < .001$). Effect sizes of the canonical correlation range from .216 to .270, suggesting that mo re than one fifth of the variability in the respondents' perceptions of organizational performance can be attributed to the seven dimensions of leaning organization. The above results are comparable to the previous studies (Ellinger et al., 2000; Yang et al., 1998). In summary, our analyses offer support for the predictive validity of the Chinese version of the DLOQ instrument in Taiwanese contexts.

Conclusions and Discussions

The Chinese version of the DLOQ has revealed similar psychometric properties to the original instrument. First of all, the Chinese version has demonstrated acceptable reliability estimates in terms of internal consistency. Few items seem to imply different meanings because of cultural contexts and thus have caused somewhat decrease of the reliability estimates. Future studies should pay attention to these items and be aware of the cultural differences in utilizing the instrument. Maybe in translating and adapting an instrument, there is a need of modifying and developing more culturally relevant items.

Secondly, the seven-dimension factor structure proposed by the learning organization theorists was stable in Taiwanese contexts. In fact, the results for the statistical indices of data-model fit have been better than those registered with the original one. The proposed seven dimensions accounted for nearly three quarters of learning activities reported in the full 43-item instrument, and it explained nearly 90% of variations of the learning activities reported in the selected 21 questions. The results of model fit indices suggested that the proposed seven dimensions of learning organization are applicable in Taiwanese contexts.

Thirdly, the Chinese version of the DLOQ has demonstrated strong predictive validity in terms of classifying different types of organization and predicting perceived organizational performance. The results of data analysis show that a discriminant function could be built on the measures of the DLOQ to successfully predict participant's organizational type. Forty-three percent of the participants could be classified into correct organizational memberships based on the seven dimensions of learning organization proposed in the DLOQ. Moreover, the seven dimensions of learning could be used to predict perceived organizational performance. It is thus concluded that the Chinese version of the DLOQ has demonstrated reasonable predictive validity.

Implications for Research and Practice in HRD

This study has implications for both research and practice in human resource development. This study offers some preliminary evidences of reliability and validity for a Chinese version of the DLOQ. The Chinese version of the DLOQ thus can be used in organizational studies in several regions where Chinese is official language (i.e., China, Hong Kong, Singapore, Taiwan). The positive evidence of psychometric properties of the Chinese version of the DLOQ suggests some potential cross-culture avenues. However, this study provides an empirical data on which seven-dimensions as determinants of learning organization in Taiwanese context. It offers a cross validity evidence for the DLOQ in Taiwanese context. The results of the study show that the seven-dimension concept of learning organization proposed in the USA tends to be applicable to organizations with different culture. It also suggests that the DLOQ can be used to assess cultural differences in building learning organization. The instrument can also be used along with other valid assessment tools to reveal cultural factors influencing the effort of organization development.

This study also has practical implications for the HRD practice. For those multi-national and international organizations that have branches or joint ventures in Chinese-speaking region, the DLOQ offers a valid tool in evaluating and planning organization development efforts across the regions. For native organizations in the Chinese-speaking countries, the Chinese version of the DLOQ offers a timely assessment device.

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Bella Ya-Hui Lien
National Chung Cheng University, Chia-Yi, Taiwan

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Methods

Translation

The English version of the DLOQ (Watkins & Marsick, 1997) was first translated into Chinese by three researchers. Two of them conducted initial translation. Both of the researchers were native Chinese and they all obtained graduate degrees of HRD in American universities. One of them has returned to China as a faculty member in a business school, and the other is currently teaching in an American university. In this initial translation process, efforts were made to use common Chinese equivalents for all words and phrases and to translate the original text as close as possible. This initial translation was done independently. After each of the researchers has finished the first translation, each of them critiqued and evaluated the other's work. It was found that two researchers shared same or very close translations for the majority of the instrument. The consensus part was kept, and the different areas were debated and modified until a consensus was reached. Very few areas were found too difficult to reach the consensus and they tend to be words or phrases with particular meanings that have different usages in Chinese. For example, there is no exact word or phrase that represents the word of "vision." In fact, there are two common usages in research and business world. One implies "long-term picture" and the other refers to "shared long-term goals." It was decided to use the later one after consulting with other Chinese HRD scholars and practitioners.

A third researcher, whose native language is Chinese, served as an independent judge for the previous translations. The person is on faculty in a Taiwanese university and has obtained graduate degree of HRD from an American university. Due to the context differences between Mainland China and Taiwan, the habitual usage of the Chinese language in words or phases was slightly different between two places. However, two other Taiwanese HR professors, who both graduated from the American universities, were invited to confirm the minor changes between the simplified Chinese version and the traditional Chinese version. With slightly modification of several specific words or phases, the traditional Chinese version of DLOQ was distributed for Taiwanese organizations.

Sample

After contact several Taiwanese companies, five medium to large size private corporation, which are known or promoted the learning organization concept, were invited to participant this study. Two of them were highly reputed finance/insurance companies, three of them were considered as high-tech companies. With the full response rate, a total of 679 subjects consist of a random sample from multiple organizations. Three hundred and forty (340) subjects out of all six hundred and seventy-nine (679) subjects were randomly selected from the two finance/insurance companies. Most of the subjects are on the management and administration position, others are sales. In addition, three hundred and thirty-nine (339) subjects out if six hundred and seventy-nine (679) subjects were randomly selected from the three high-tech companies. Most subjects selected from the high-tech companies are both include management and non-management (technical/professional).

Data Analysis

To address the first research question, item analysis procedure was used to assess the internal consistency for each of seven proposed dimensions of learning organization in a different context. Each of the items included in the DLOQ was examine in terms of its correlation with proposed dimension. Cronbach's coefficient alpha was used to assess the reliability of the scale.

Confirmatory factor analysis (CFA) was utilized to determine the dimensionality and factor structure of the Chinese version of the DLOQ. The CFA was conducted with LISREL 8 program (Jöreskog & Sörbom, 1989, 1993a, 1993b). CFA is a statistical procedure that examines the construct validity of an instrument with pre-specified dimensions and associated measurement items. In this study, we are particularly interested in assessing whether the seven-dimension structure proposed in the DLOQ constitutes an adequate measurement model for the learning organization concept in Taiwanese context. Yang, Watkins and Marsick (2000) conducted an extensive series of exploratory and confirmatory factor analysis and found that a reduced 21-item measurement model yielded superior fit indices than the original 43-item model. Consequently, two measurement models were examined to assess the adequacy of seven-dimension factor structure of the DLOQ in the new context: one for all 43 learning organization items and another for the reduced set of 21 items.

Discriminant analysis was used to assess the extent to which the Chinese version of the DLOQ could be used to successfully classify different types of organizations. It was reasoned that different type organizations could be predicted from the measures in the DLOQ because of their different backgrounds and emphasis in learning activity. Predictive discriminant analysis (PDA) was used to predict group memberships based on a linear combination of set of predictors (Huberty, 1994). We reasoned that the predictive validity is evident for the measures of learning organization when they can be used to predict different types of organizations. In the current case, two major types of organizations were included, finance/insurance and high-tech companies.

In answer fourth research question, canonical correlation was selected to assess the association between dimensions of the learning organization and perceptual measures of firm performance. This is a technique for examining the association between two sets of variables (Stevens, 1996). The underlying principle is to develop a linear combination of each set of variables (both dependent and independent variables) in a manner that maximizes the correlation between the two sets. The canonical analysis was conducted by MANOVA procedure using SPSS program (Norusis & SPSS Inc., 1990).

Results

Estimating Reliability

Table 1 presents a comparison of the reliability estimates of the DLOQ among different studies. Cronbach's coefficient alpha was used to estimate the reliability for the measures included in the DLOQ. The table also reports corresponding estimates in other studies. In all but two subscales, the reliability estimate was comparable with previous studies conducted in America and Colombia. Three subscales, *Continuous Learning, Empowerment* and *Embedded System*, had relatively low internal consistency. A careful examination of the item analysis results revealed that each of these three subscales was crippled by one measurement item. Item 5, "In my organization, people are given time to support learning," had relative low item-total correlation. This might be caused by the fact that this item implies slight different meaning in the Chinese version. The Chinese version might have caused the respondents to perceive as to "be given learning time" rather than to "be given time to support learning."

Consequently, the respondents might have viewed this question as a reflection of reward rather than something indicating organization's effort to create continuous learning opportunities for employees. Therefore further modification of item 5 is needed in future instrument refinement. Nevertheless, the coefficient alpha for the subscale of "*Continuous Learning*" has reached .81 when item 5 was removed from this subscale.

Although the reliability estimate for "*Empowerment*" (α = .75) was somewhat lower than those revealed in other studies, it reached an acceptable level (α = .82) when item 29 was excluded from the scale. Item 29 was stated as: "My organization give people control over the resources they need to accomplish their work." A careful re-examination of the Chinese translation failed to reveal any linguistic mismatch with the original English version. Special attention needs to be paid to monitor the performance of this item in future study.

Table 1. *Reliability Estimates for the DLOQ Measures*

Dimensions	America		Colombia	Taiwan
	Yang et al. (N = 469)	Ellinger et al. (N = 208)	Hernandez (N = 906)	Current Study (N = 679)
Continuous Learning	.79	.81	.80	.72
Inquiry & Dialogue	.85	.86	.81	.89
Team Learning	.84	.85	.79	.86
Empowerment	.75	.84	.81	.75
Embedded System	.80	.85	.81	.71
System Connection	.82	.87	.80	.89
Provide Leadership	.86	.89	.84	.91
Knowledge Performance	.74	.80	.82	.87
Financial Performance	.71	.75	na	.89

The reliability estimate for "*Embedded System*" in this study (α = .71) was significantly lower than those in other studies (ranging from .80 to .85). Item 24, "My organization makes its lessons available to all employees," was the one that contributed the decreased internal consistency. The coefficient alpha reached slightly higher level (α = .75) when item 24 was deleted from the item analysis. No obvious linguistic difference was found in examining the English and Chinese versions of this item and other items included in this subscale. This unexpected performance of item 24 in Taiwanese context might be explained by the influence of traditional Chinese culture. "Face-saving" tends to be very important in the Chinese society (Earley, 1997). Thus it is quite rare for a formal organization to openly admit any lessons because such action implies some mistakes or wrong doing. The fact of relative low internal consistency for the measures of "*Embedded System*" in a Chinese context might also be explained by different managerial approaches between the West and the East. Yang and Zhang (2001) contend that Western managerial emphasis is placed on system and structure of the organization, and that the Eastern managerial emphasis tends to target on the human side of organization (i.e., process and practice). Consequently, measures of "*Embedded System*" developed in a Western culture might be less consistent when they were used in an Eastern context. Although few subscales tend to demonstrate less desirable reliability estimates, none of the reliability estimate was below .70 and most of them have shown acceptable reliability estimates.

Assessing Factor Structure

Table 2 presents the fit indices for the two measurement models as the results of confirmatory factor analysis. Six criterion indices were chosen to evaluate the fit between the proposed measurement model and that generated from the sample. The indices selected were the traditional chi-square (χ^2) test, Jöreskog and Sörbom's (1989) goodness of fit index (GFI) and goodness of fit index adjusted for degree of freedom (AGFI), Bentler's (1990) comparative fit index (CFI), Bentler and Bonett's (1980) non-normed fit index (NNFI), Steiger's (1990) root mean square error of approximation (RMSEA) and Jöreskog and Sörbom's (1989) root mean square residual (RMR). The GFI and AGFI reflect the proportion of joint amount of data variance and covariance that can be explained by the measurement model being tested. The NNFI is a relative fit index that compares the model being tested to a baseline model (null model), taking into account the degrees of freedom. The CFI indicates the degree of fit between the hypothesized and null measurement models. The RMR is a measure of the average of the fitted residuals. The RMSEA represents a real advance in the evaluation of model fit from both a statistical and a conceptual viewpoint. Browne and Cudeck (1993) argue that because theoretical models are at best approximations of reality, the null hypothesis for any measurement/structural equation model (i.e., the conventional chi-square test that the data fits the

model perfectly) will rarely be true. Rather than testing the null hypothesis of *exact fit* between the covariance matrix of sample and that of model for population, RMSEA establishes a hypothesis of *close fit* between the model and population. RMSEA values of .05 or less indicate a very close fit between sample and theoretical model, accounting for degrees of freedom. Values less than .08 reflect reasonably well fitting models (Browne & Cudeck, 1993).

Table 2. *Fit Indices for Measurement Models of the DLOQ*

Fit Index	Full 43 Items	Reduced 21 Items
χ^2	4128.69	830.21
df	839	168
χ^2/df	4.92	4.94
RMSEA	.076	.076
RMR	.046	.042
GFI	.74	.89
AGFI	.70	.85
NNFI	.85	.92
CFI	.86	.93

The CFA results for the Chinese version of the DLOQ offered further evidence for the dimensionality of learning organization proposed by the theorists. Although the seven-dimension factor structure with 43 items fitted the data moderately well, reduced 21items of the same factor structure fitted the data reasonably well. Nearly 90% of item variance and covariance was explained by the seven-dimension factor structure (GFI = .89). Both non-normed fit index (.92) and comparative fit index (.93) were above .90, a critical level that has been normally regarded as an indication of good mode-data fit. Furthermore, RMR and RMSEA have been reasonably low (RMR < .05 and RMSEA < .08) and that suggested overall fit between the proposed seven-dimension model and the data. In sum, the seven-dimension framework of learning organization proposed by Watkins and Marsick has demonstrated its applicability to Taiwanese organizations when their learning activities were measured by the Chinese version of the DLOQ.

Determining Predictive Validity

Predictive validity is the extent to which an instrument can successfully predict criterion measurement (Crocker & Algina, 1986). It was reasoned that the predictive validity would be evident if measures on the DLOQ could successfully predict different types of organization and organizational performance. Table 3 reports the prediction results for two organizations based on seven dimensions of learning organization measured on the Chinese version of the DLOQ. Prior probabilities were set at the proportions of two types of organizations. The results indicate that 63.9% of all participants were correctly classified as belong to either finance/insurance or high-tech organizations.

Table 3. *Classification for Different Types of Organization Based on the DLOQ*

Actual Group Membership	Number of Participants	Predict Group Membership	
		Finance/Insurance	High-Tech
Finance/Insurance	340	64.7%(220)	35.3%(120)
High-Tech	339	36.9%(125)	63.1%(214)
Percent classified correctly: 63.9%			

Note: Numbers of participants are shown in brackets.

To further assess the predictive power of the seven dimensions of learning organization measured on the Chinese version of the DLOQ, we evaluated the effectiveness of the prediction by the discriminant function based on a formula suggested by Huberty (1994, pp. 103-106). For the current prediction results, we obtained that the standard normal statistic is $z = 7.25$ ($p < .001$), which clearly indicates a better-than-chance results. In other words, by using a classification rule of the discriminant function based on the seven dimension of learning organization, significant fewer errors would be made than if classification were done by chance. The above results suggest that the Chinese version of the DLOQ has demonstrated a strong predictive power in classifying different types of organizations.

The second type of predictive validity evidence was found when a canonical correlation analysis was conducted where the perceptual measures of organizational performance were treated as a set of dependent variables and seven dimensions of learning organizations were put as predictors. Table 4 shows the results of the canonical correlation analysis and demonstrates the overall effects of the seven dimensions of learning organization on organizational performance.

Table 4. *Multivariate Tests of Significance for Canonical Correlation*

Test Name	Value	Approx. F	Hypoth. df	Error df	Sig of F.	Effect Size
Pillais	.433	26.260	14	1342	.000	.216
Hotellings	.742	35.421	14	1338	.000	.270
Wilks	.572	30.866	14	1340	.000	.244
Roys	.422					

The multivariate tests for the canonical correlation analysis indicate a statistically significant relationship between the seven dimensions of learning organization and the two perceptual measures of organizational performance ($p < .001$). Effect sizes of the canonical correlation range from .216 to .270, suggesting that more than one fifth of the variability in the respondents' perceptions of organizational performance can be attributed to the seven dimensions of leaning organization. The above results are comparable to the previous studies (Ellinger et al., 2000; Yang et al., 1998). In summary, our analyses offer support for the predictive validity of the Chinese version of the DLOQ instrument in Taiwanese contexts.

Conclusions and Discussions

The Chinese version of the DLOQ has revealed similar psychometric properties to the original instrument. First of all, the Chinese version has demonstrated acceptable reliability estimates in terms of internal consistency. Few items seem to imply different meanings because of cultural contexts and thus have caused somewhat decrease of the reliability estimates. Future studies should pay attention to these items and be aware of the cultural differences in utilizing the instrument. Maybe in translating and adapting an instrument, there is a need of modifying and developing more culturally relevant items.

Secondly, the seven-dimension factor structure proposed by the learning organization theorists was stable in Taiwanese contexts. In fact, the results for the statistical indices of data-model fit have been better than those registered with the original one. The proposed seven dimensions accounted for nearly three quarters of learning activities reported in the full 43-item instrument, and it explained nearly 90% of variations of the learning activities reported in the selected 21 questions. The results of model fit indices suggested that the proposed seven dimensions of learning organization are applicable in Taiwanese contexts.

Thirdly, the Chinese version of the DLOQ has demonstrated strong predictive validity in terms of classifying different types of organization and predicting perceived organizational performance. The results of data analysis show that a discriminant function could be built on the measures of the DLOQ to successfully predict participant's organizational type. Forty-three percent of the participants could be classified into correct organizational memberships based on the seven dimensions of learning organization proposed in the DLOQ. Moreover, the seven dimensions of learning could be used to predict perceived organizational performance. It is thus concluded that the Chinese version of the DLOQ has demonstrated reasonable predictive validity.

Implications for Research and Practice in HRD

This study has implications for both research and practice in human resource development. This study offers some preliminary evidences of reliability and validity for a Chinese version of the DLOQ. The Chinese version of the DLOQ thus can be used in organizational studies in several regions where Chinese is official language (i.e., China, Hong Kong, Singapore, Taiwan). The positive evidence of psychometric properties of the Chinese version of the DLOQ suggests some potential cross-culture avenues. However, this study provides an empirical data on which seven-dimensions as determinants of learning organization in Taiwanese context. It offers a cross validity evidence for the DLOQ in Taiwanese context. The results of the study show that the seven-dimension concept of learning organization proposed in the USA tends to be applicable to organizations with different culture. It also suggests that the DLOQ can be used to assess cultural differences in building learning organization. The instrument can also be used along with other valid assessment tools to reveal cultural factors influencing the effort of organization development.

This study also has practical implications for the HRD practice. For those multi-national and international organizations that have branches or joint ventures in Chinese-speaking region, the DLOQ offers a valid tool in evaluating and planning organization development efforts across the regions. For native organizations in the Chinese-speaking countries, the Chinese version of the DLOQ offers a timely assessment device.

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Our Two-Tiered Learning Organizations: Investigating the Knowledge Divide in Work-Related Learning

Thomas S. Westbrook
Drake University

James R. Veale
Statistical/Research Consultant & Educator

This study investigated differences in work-related learning patterns and awareness of organizational policies that impacted the level of learning among 1,031 full-time employed adults. Significant differences were found in the adults' self-reported current and preferred learning patterns and awareness of work-related learning policies when examined by education level and occupation category. The findings suggest that a knowledge divide is evident in our organizations. The results have programmatic and policy implications for HRD professionals.

Keywords: Knowledge Divide, Work-related Learning, Learning Organizations

In their book, *The Monster Under the Bed*, Davis and Botkin (1994) warn us of a two-tiered society inhabited by knowledge haves and have-nots (p. 158). It is proposed in this paper that a knowledge divide exists in some organizations and that their concern was well-founded.

Despite steady increases in dollars allocated to training and development, all is not equal in our learning organizations. We know, for instance, that:

1. The extent to which organizations embrace learning varies. On average, corporations spend about 2.0% of payroll on education for their employees (up from 1.8% in 1997), ranging from negligible amounts to as much as 4.4% for leading edge corporations (McMurrer, Van Buren, and Woodwell, 2000).
2. The level of training that employees receive is not evenly shared across organizations. For example, organizations with the highest level of training tend to be in the areas of transportation, communications, and utilities with the lowest levels in public administration, education, and health services (Industry Report, 1998 & 1999).
3. There is wide variance in the amount of training individuals receive by occupation, pay, and by education level (McMurrer, Van Buren, and Woodwell, 2000). Employee education centers upon learning for managers and professionals, productivity for service workers, and basic schooling for unskilled workers, in that order (Davis and Botkin, 1994, pp. 85-86).
4. The greater one's education level the more likely one will receive additional training. The typical firm trained 77% of workers with some higher education compared to 49% of employees with less than a high school education (Bassi and Van Buren, 1999, p. 13). Hight (1998) found in his survey of over 12,000 adults that only 6% of workers with less than a high school education participated in employer training during the previous twelve months. In contrast, 46% of workers with some college and 63% of workers with college degrees received employer provided training. A similar variation was found in the level of training by education by Frazis, Gittleman, Horrigan, and Joyce (1998), and by Barron, Berger, and Black (1997).
5. The illiteracy rate continues to climb while corporations dedicate fewer dollars to basic skills training. Literacy problems cost American companies an estimated $60 billion dollars in lost productivity with 90 million adults defined as functionally illiterate (Baynton, 2001). As many as 38% of job applicants lack the necessary basic skills in reading, writing, and math to do the jobs they desired, an increase of 15% over the past two years (Baynton, 2001). It is estimated that only 13% of American companies offered remedial training to employees – a decrease from a high of 24% in 1993 (Baynton, 2001).
6. "At present, too many of us view learning as a nice addition to our lives, but not as the essential characteristic that contributes to our ability to prosper in business" (Wheatley, 1994, s47).

The purpose of this study was to determine if a two-tiered system of knowledge haves and have-nots was discernable in adults' self-reported work-related learning patterns and behaviors. This study was part of a larger research project that explored the extent to which working adults indicated they embraced work-related learning as an essential characteristic or core value in their work setting and lives, and their awareness of organizational policies

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and benefits that impacted their level of learning. This paper supplements and highlights aspects of the research published in the Fall 2001 issues of the *Human Resource Development Quarterly* (Westbrook and Veale, 2001a) and the *Journal of Continuing Higher Education* (Westbrook and Veale, 2001b). It is the intention of this paper to share research results that provide evidence of a knowledge divide existing in our organizations. It is hoped that the information presented in this paper will prompt discussion about the implications of the knowledge divide for our work as HRD professionals.

Work-related learning was defined as the formal and informal education and training adults completed at work or at home to assist them in their current and/or future employment. Two demographic or background variables were investigated to determine if a knowledge divide could be identified in numerous work-related survey questions. The variables were education level and occupation category. The following research questions guided this study:

1. Is there a significant relationship between the education level and occupation category of adult workers in the sample?
2. Is there a significant difference in the amount of time adult workers devote and would prefer to devote to various work-related learning activities when examined by education level and occupation category?
3. Is there a significant difference in the comfort level of adult workers regarding the amount of time dedicated to self-directed, work-related learning while at work when examined by education level and occupation category?
4. Is there a significant difference in the awareness of adult workers regarding various organizational policies that support work-related learning when examined by education level and occupation category?

Sample & Methodology

The data from this study were obtained by 73 students enrolled in a graduate adult education class facilitated by one of the researchers from 1996 to 1998. In 1997 the class was held via a fiber-optic interactive telecommunications system at eight locations in Iowa. The sample consisted of 1,031 adults employed full-time in 60 organizations in Iowa. The organizations included manufacturing and service providers, profit and nonprofit corporations, as well as state government and educational institutions. The sample, delineated by education level and occupation category, is listed in Table 1.

Table 1. *Demographic Profile of the Sample*

Item	N	Percent
Education Level		
High school	126	12.2
Some college	183	17.7
Two year degree	114	11.1
Four year degree	475	46.1
Graduate degree	119	11.5
Missing	14	1.4
Total	1,031	100.0
Occupation		
Clerical/Support	122	11.8
Manufacturing/Processing	123	11.9
Supervisory/Management	244	23.7
Professional	457	44.3
Other	68	6.6
Missing	17	1.6
Total	1,031	100.0

A snowball sampling method was used to derive the sample. Snowball sampling is a method whereby individuals with desired traits survey another set of subjects with desired traits (Black, 1999). In this instance, working adults enrolled in a graduate credit class at a private university in Iowa surveyed other adults working in their organizations. This type of sampling is applied when there are no lists of population members – or, as in this case, where that list would be extremely difficult to develop. A drawback of this procedure is its lack of randomness. Thus, there is no assurance that the sample is representative of the population of adult employees in Iowa.

After reviewing pertinent literature, an author-constructed questionnaire was designed, administered, and analyzed during the fall semester of 1995. Upon tabulating and evaluating the results, the questionnaire was edited and used during the summer and fall terms of 1996 through 1998.

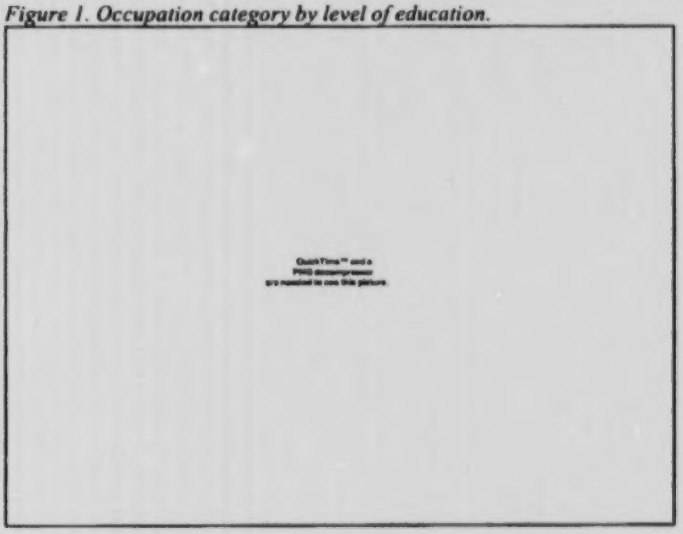
Various statistical operations were performed on the data obtained from the survey. The demographic variables of education level and occupation category were analyzed to determine the influences of each variable on the responses to the questions of the survey. Only statistically significant results are reported in this paper. Because of the non-normality of the data, nonparametric tests were applied. Differences were reported at the .05 level of significance. The Bonferroni adjustment was used for conducting multiple comparisons to control the overall Type I error rate (Milliken and Johnson, 1992; Fuchs and Kenett, 1980).

Findings

Research Question 1. Is there a significant relationship between the education level and occupation category of adult workers in the sample?

A significant relationship (P=.000) was found between the education level and occupation categories of the adult workers in the sample. Upon inspection of the cross-tabulations, the difference was attributed to the occupation categories of clerical/support and manufacturing/processing when compared with the categories of supervisory/ management and professional. Among those adults who have earned two-year, four-year and graduate degrees, there was a much higher percentage of adults who were employed in supervisory/management and professional occupations, while among high school graduates there was a higher percentage of adults in clerical/support and manufacturing/processing occupations (see Figure 1).

Figure 1. Occupation category by level of education.



Research Question 2. Is there a significant difference in the amount of time adult workers devote and would prefer to devote to various work-related learning activities when examined by education level and occupation category?

The respondents were asked to list the average number of hours spent on eleven work-related learning activities. These activities ranged from reading professional/education literature and attending in-house staff development/training programs to attending conferences, seminars and other continuing education programs. The respondents were then asked to list the average number of hours they would prefer to spend on each activity to stay current of the knowledge needed to remain current in their line of work.

Utilizing the Wilcoxen signed ranks test, the differences between the current and preferred amount of time dedicated to the work-related learning activities were tested. A significant difference was found in each of the eleven activities (see Westbrook and Veale, 2001a). In each instance the individuals indicated a preference for spending an increased amount of time on work-related learning activities to stay current of the knowledge in their line of work.

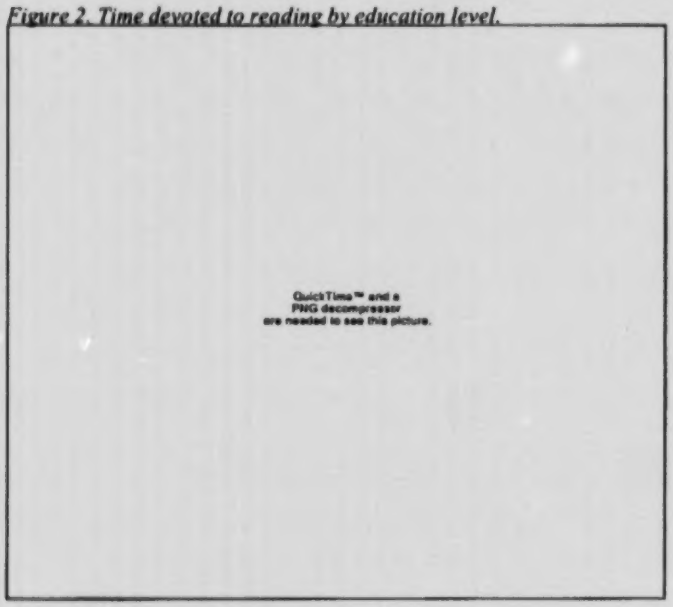
Significant differences were also found in the current and preferred number of hours devoted and the preference gap (preferred minus current) when examined by the adults' education level and occupation category. For education level, the areas were "reading professional/educational literature," "use of company or local library," and "attendance at regional, national, or international conferences." In nearly all instances the results were attributed to

the differences in current hours, preferred hours, and the preference gap between those adults with a four-year or graduate degree when compared with those with only a high school education or some college. Those with increasing levels of education spent more time on each educational activity and preferred to spend more time on each activity then those with only a high school or some college education.

For the occupation category, the areas yielding significant differences included "reading professional/educational literature," "in-house staff development/training programs," "use of company or local library," and "attendance at regional, national, or international conferences." In nearly all instances, the results were attributed to the differences in current hours, preferred hours, and preference gap between those adults employed in supervisory/management and professional positions when compared with those adults employed in clerical/support and manufacturing/processing jobs. Those adults working in supervisory/management and professional occupations spent more time and would prefer to spend more time on each educational activity than those in clerical/support and manufacturing/processing jobs.

For example, the current and preferred number of hours expended for the activity "reading professional and educational literature," as well as the difference between them increased by education level (P=.000, all three tests). These findings are illustrated in Figure 2.

Figure 2. Time devoted to reading by education level.



Research Question 3. Is there a significant difference in the comfort level of adult workers regarding the amount of time dedicated to self-directed, work-related learning while at work when examined by education level and occupation category?

The participants were asked to indicate their level of comfort if individuals of increasingly higher occupational status entered their workspace while they were reading a professional journal, newsletter, or textbook. The individuals listed as entering the respondent's workspace were "a peer at work," "someone who reports to you (list 'NA' if not applicable)," "your immediate supervisor," and "a top-level executive." Of the total sample, 613 adults responded to all four categories, and 1000 employees responded to the all but the category "Someone who reports to you." They used the following scale to answer this question:

1 = feel comfortable about spending work time in this manner.
2 = have mixed feelings about spending work time in this manner.
3 = feel uncomfortable about spending work time in this manner.
4 = feel like I was doing work best done on my own time.

Using the Friedman nonparametric test, significant differences were found in the ratings of the four categories of individuals who hypothetically entered the respondent's workspace (P=.000). The individuals became

increasingly less comfortable dedicating work time to learning as individuals with increasingly higher levels of occupational status entered their workspace (see Westbrook and Veale, 2001a).

When examined by education level, one significant difference was found in the area "someone who reports to you" (P=.018). In this instance the adults with only a high school education were more uncomfortable spending time on work-related learning activities than those with a graduate degree.

When viewed by occupation category, significant results were obtained. Upon inspection, the major differences occurred when those employed in manufacturing/processing occupations were compared with those in supervisory/management and professional categories. In each instance, the adults employed in manufacturing/ processing occupations indicated they were more uncomfortable reading a journal, newsletter, or textbook when a "peer," "someone who reports to you," "your immediate supervisor," or a "top level executive" entered their workspace.

Research Question 4. Is there a significant difference in the awareness of adult workers regarding various organizational policies that support work-related learning when examined by education level and occupation category?

Several questions were asked related to the adults' awareness and use of various work related organizational policies. First, the respondents were asked if the need for work-related learning was expressed within key corporate communications such as the mission or vision statement. The answer were "yes," "no," and "I don't know." Fewer than half responded affirmatively to this question. In fact, almost a quarter of the respondents did not know if the need for work-related learning was stated within company communications. No significant difference was attributed to the education level of the adults. In contrast, a significant difference was obtained when viewed by occupation category (P=.000). Upon inspection, the difference was attributed to the relatively large number of clerical/support workers and the relatively small number of supervisory/management personnel who indicated that they did not know if the need for work-related learning was expressed in such corporate communications.

Second, the adults were asked if their employer had explained the availability of work-related education and development benefits or educational opportunities available at their place of employment. Over 80% or the respondents indicated that they were informed of such benefits or educational opportunities. When viewed by education level, a significant difference was found (P=.032) and was attributed to the relatively large number of adults with only a high school education who answered that they did not know about such benefits or opportunities. Likewise, when viewed by occupation category, a significant difference (P=.004) was found and was attributed to the relatively large number of adults in the manufacturing/processing category who indicated they did not know if such benefits had been communicated.

Third, the vast majority of respondents (83.9%) indicated that their employer had a defined amount of funds or a tuition reimbursement policy that they could use to attend work-related learning activities. When viewed by education level, a significant difference was found (P=.003) and was attributed to the relatively large number of adults with only a high school education who answered that they did not know about such funds or policies. Likewise, when viewed by occupation category, a significant difference was found (P=.000) and was attributed to the relatively large number of adults in the manufacturing/processing category who indicated they did not know of such funds or policies.

In general, the respondents with only a high school diploma and those employed in clerical/support and manufacturing/processing occupations seemed much less aware of the work-related learning policies and benefits when compared with the others. These respondents were significantly more likely to indicate, "I don't know" if work-related learning policies and benefits were communicated to them or if their employer had budgeted funds for their use. It is important to note that 70.4% of the adults employed in clerical/support and manufacturing/processing occupations had only a high school education.

Discussion

The purpose of this research was to examine if evidence of a knowledge divide existed in the self-reported work-related learning patterns and attitudes of 1,031 working adults in Iowa. An author-constructed survey served as the basis of an optional graduate research project that involved 73 part-time graduate students between 1996 and 1998. The data were examined by investigating the possible influence of the adults' educational level and occupation category on the responses to the survey questions.

To date, few research studies have investigated the level to which adults indicate they place learning as a priority or core value in their lives, or the extent to which organizational factors enhance or inhibit individual

learning (Merriam & Caffarella, 1999; Gallup Organization, 1998). Thus, this research was helpful in providing a descriptive measure of adults' attitudes about individual and organizational factors impacting their level of learning.

The results of this study support the existence of a knowledge divide in our organizations. This divide is related to the adult's education level and occupation category. The divide by education level occurred between those with only a high school education or some college compared to those with a four-year or graduate degree. The divide by occupation level occurred between those individuals employed in clerical/support or manufacturing/ processing jobs as compared to those adults working in supervisory/management or professional occupations.

In comparison to adults with a four-year or graduate degree, those with only a high school education or some college spend less time in work-related learning activities, prefer to spend less time in work-related learning activities, and are considerably less aware of organizational policies related to work-related learning benefits. These results are indicative of the knowledge divide referenced by Davis and Botkin (1994).

This research calls into question the premise of a learning organization where all employees continually learn. Senge (1990) described the learning organization as a place "where people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (p. 3). Thompson (1995) stated, "A company's ability to learn and innovate is a direct driver of the company's capability to increase revenues, profits, and economic value" (p. 85). This study suggests that the learning organization may exist only for those with the highest levels of education working in higher status occupations. If true, there seems to be a disconnect between what is advocated as necessary for learning organizations and the actual state of learning in some, and perhaps most, corporations (see Westbrook and Veale, 2001a).

Specifically, the conclusions from this study suggest the following:

1. Differences in current and preferred learning patterns exist across education levels and occupation categories.
2. Differences in the awareness of organizational work-related learning policies and benefits exist across education levels and occupation categories.
3. Employees in the manufacturing/processing occupations are the least comfortable spending time in self-directed work-related learning.
4. Employees with only a high school education or some college seem the most at-risk of becoming the knowledge have-nots in our society.

The results of this study may be helpful to professionals within the human resource development field as they provide an opportunity to examine the specific learning culture within organizations and the extent to which a knowledge divide exists in various corporations. Using the instrument of this study, an organizational audit of current and preferred levels of work-related learning as well as awareness of organizational policies that advance learning could be conducted and would be helpful to assess an organization's learning culture.

For those involved in academic research, this study advances our understanding of the extent to which learning serves as a core value for most adults and the organizations in which they are employed. It would be of interest to determine whether the apparent knowledge divide is the intended or unintended consequence of the practices of most organizations. Such research would shed light on the extent to which the tenants of the learning organization are actually practiced within most organizations.

Limitations to the Research

The sample of this study was comprised of adults employed full-time in Iowa. The sample of the study was derived from volunteers enrolled in a graduate degree program who surveyed employees at their place of employment. The sample, while large, is not random. Thus, there is no assurance that the sample is representative of the population of adults working in organizations in Iowa.

Recommendations for Further Research

This study should be viewed as an initial step in determining the existence of a knowledge divide in our organizations. The results provide encouragement for additional research on the work-related learning preferences and attitudes of adults. A national, statewide, or organization-wide study using a random sample would be a good next step in identifying the work-related attitudes of adults and the extent to which the knowledge divide is a reality in our society.

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Adult Learning Principles and Concepts in the Workplace: Implications for Training in HRD.

Margot B. Weinstein
Kingston Group Inc.

Research and theory indicated that training practices using adult learning principles can increase learning for employees in the workplace. The purpose of this qualitative research study was to examine how theory is being practiced in the workplace. The paper presents four existing adult learning principles and relates the information to interviews with participants in one organization. Finally, it provides conclusions and recommendations on how this information can contribute to the field of HRD.

Keywords: Training, Adult Learning Concepts, Learning

It has been estimated that organizations spend over $200 billion each year on training and human resource development (HRD) (Carnevale, Gainer & Villet, 1990. Recent shifts in the economy of the United States have forced trainers and human resource developers to re-examine their training strategies to insure that employees learn in the workplace (Willyard and Conti, 2001). Many sources in the literature discuss how adults learn in the workplace through application of principles of adult education (Noe, 2001; Knowles, 1980, 1995; Gilley and Eggland, 1989; Gilley and Maycunich, 2000). Because of the tremendous costs spent on training each year, both human and financial, it is important to constantly add to the research and literature to create more effective programs in HRD. In this qualitative case study, the CEO and the Senior Management Team (SMT) are responsible for designing and implementing the training procedures with employees in this organization. The SMT is well known throughout the industry for creating innovative training practices utilizing adult learning principles. These practices have been credited with increasing the learning and performance of their employees in the workplace. Training is defined as "Learning that is provided in order to improve performance on the present job" (Gilley and Eggland, 1989, p.7). Therefore, the purpose of this study was to examine how the principles of adult learning were used in the design of formal and informal training practices to increase learning for employees in the workplace and relate the findings to the field of HRD. Through the lived experiences of the CEO, the SMT and several employees, five major themes emerged. This paper first reviews the literature, then, it examines the principles in the data, and last, conclusions and recommendations are related to the field of HRD.

Theoretical Framework

The research study began by focusing on the concept of Andragogy by Malcolm Knowles, defined as "the art and science of helping adults learn" (Knowles, 1980, p. 43). Andragogy transformed the study of adult learning. However, throughout the year long study, qualitative methods allowed themes to emerge from interviews with the CEO, members of the SMT and employees that revealed that SMT also utilizes other adult learning principles in their training practices. One of the characteristics of qualitative case study is its ability to illuminate a phenomena in its context that enables themes to be identified and examined (Yin, 1994). A review of the literature acknowledged that the following concepts and approaches have been used to help adults learn in organizations; each approach has its own preferred approach to learning (Gilley and Maycunich, 2000; Gilley and Eggland, 1989). The principles that emerged were examined in the literature, and they formed the basis for the continued research at this organization.

Andragogy

Malcolm Knowles (1980, 1995) concept of Andragogy, adult learning theory, formed the basis for this study. Andragogy is based on the assumption that learning is an internal process of which the locus of control resides with the learner, and therefore the teacher or trainer is to facilitate the learning. Five key assumptions form the tenets of Andragogy by Knowles (1980; 1995): (a) Self-concept of the Learner. Adults have a deep psychological need to be self-directing, (b) Role of experience. Adults bring with them a rich background of experiences that is a valuable resource for their own learning and that of other students, (c) Readiness to Learn. Adults learn more effectively when adults see that the information is relevant to their lives. It assumes that the facilitators need to help adults see how the training or

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courses can help them perform more effectively in their jobs, (d) Orientation to Learn. Adults enter into educational or training activities to acquire prescribed subject-matter. Educational activities need to help adults in the process of acquiring content in organized units, sequenced according to logic of the subject matter, (e) Motivation to Learn. "Each person is unique and brings with his/her own goals and internal motivators; it assumes that learning plans and strategies must be highly individualized" (Knowles, 1995, pp. 1-3).

Experiential Learning

Another approach to learning is the experiential model by Kolb (1984). In this model, true learning depicted as a four-part process. Kolb (1984) proposed that learners have "concrete experiences;" then they reflect on the experiences from a variety of perspectives. From these "reflective observations," learners engage in "abstract conceptualization" in which they create generalizations or principles that they integrate their observations into theories. Learners use these generalizations as guides to engage in further action called "active experimentation," which they test what they have learned in more complex situations.

Humanist Theory

This approach exemplified by Carl Rogers's (1974) states that all people are unique and possess individual potential; and all people have a natural capacity to learn. This approach upholds the idea that the purpose of learning is to encourage individuals to develop his/her full potential (Gilley and Eggland, 1989). Humans have the ability to learn almost anything. The combination of external factors and internal fears can prohibit humans from learning unless they receive warmth, care and understanding (Wiltsher, 1999). Maslow (1970) argued that people have personal factors that influence the need for learning, and Maslow proposed a theory of human motivation for learning, based on the "Hierarchy of Needs," individuals first learn to satisfy basic needs such as hunger and thirst and they progress towards self-actualization.

Transformative Learning Theory

Mezirow (1978) said that this approach is associated with meaning-making processes, by examining how a more inclusive integrative understanding of one's experience can be used to solve complex problems. In this concept, it is not just the mere accumulation of experience that matters, but instead, the way in which individuals make meaning of their experiences that facilitates growth and learning. Mezirow (1978) defines learning as a meaning-making activity: "Learning is understood as the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one's experience in order to guide future action" (p. 162). Transformative learning centers more on the cognitive process of learning, and key is that people are changed from the learning. Mental construction of experience, inner meaning, and reflection are common components of this approach. "Adult learning can be viewed as an interpretation of information utilizing one's existing set of expectations through which meaning and ultimately one's life are constructed (Willyard and Conti, 2001, p. 325). The literature of HRD stresses the importance for employees to be able to ask questions to learn and develop (Gilley and Eggland, 1989). Central to Mezirow's concept (1991) is reflection as a "process of critically assessing the content, process, or premise(s) of our efforts to interpret and give meaning to experience. We are able to examine our action and begin posing a problem, and it ends with taking action, and the emphasis on action as the end product of the reflective process" (p. 104).

Research Questions

Since this organization is known for creating innovative formal and informal training practices using adult learning principles, this research study sought to learn what principles they used, how they were practiced, and how that information could be used to design programs in HRD. Research can add to understanding theory and practice. In order to gather that information, the following questions were designed:

1. What adult learning principles and concepts are used in the formal and informal training of employees in this organization?

2. How are these principles applied in the training practices in the workplace?
3. What are the lessons for training adults using these principles that can be applied to the field of HRD?

Methodology

This study used qualitative case study for the research design. A fundamental characteristic of case study is an intensive analysis of a phenomenon in its context that can uncover significant factors or characteristics (Merriam, 1988). A case problem approach consists of a written account of a situation that provides rich details of a phenomena (Yin, 1994). The information was gathered through formal and informal interviews and observations with the CEO, members of the SMT and 30 employees. The study lasted for one year.

Sample

Participants included the CEO and owner, six members of the SMT and 30 employees from the Cite' Fine Dining Organization located in Chicago, Illinois. The CEO and six leaders of the organization are responsible for designing and implementing the training and management procedures for the organization. The employees were very diverse; of the thirty employees: (a) more than half were men, (b) ranged from age from mid-twenties through sixties, and (c) held positions from janitorial to executives. The CEO and the SMT includes seven leaders who manage the organization; their profiles are as follows: The CEO and owner, Evangeline Gouletas, is the only women in a top leadership role in this organization. She is 40 plus years of age; she has 32 years of experience as a leader, educator and trainer. She has a master's degree, and she has completed all course work for her dissertation. She regularly takes continuing education to maintain several professional licensees, and she serves in leadership positions for many organizations and professional associations in the business. The men are between the ages from their late twenties to early sixties, and they have been successful in the business for over ten years. The men have all received their baccalaureate degrees, and one holds a law degree. In addition, several members hold licenses to practice in one or more areas of the business, maintain membership in professional organizations in the field, and take continuing education programs on a regular basis to maintain licensees and acquire new information.

Data Collection and Analysis

The information was gathered through formal and informal interviews, observation, review of documents and articles on the organization. Formal taped interviews lasted for approximately one hour. The interviews were first transcribed verbatim. The participants also received copies of the final transcribed tapes of the formal taped interviews, and they edited any personal information that they did not want in the final case study. In order to examine the data, tables were designed to display the data, and quotations from participants and further explanations were presented by the researcher as needed to clarify the data. The characteristics that emerged from the research were validated through review of tapes, transcriptions and field notes. The researcher contacted the participants several times during this study as well as reviewed all published information about their company and themselves in order to obtain accurate information. The information was further validated through documents, journals, literature review, and discussions with other professionals and educators in the field. After the completion of the data analysis process, another phase of data analysis, a search for themes, was begun. The process used "concept mapping" (Smith and Associates, 1990) as a diagnostic tool. "A concept map depicts in a diagrammatic form, ideas, examp les, relationships, and implications about a particular concept. The center or core idea is placed at the center or top of the page, and radiating from it are a number of spokes or lines leading to other concepts related to, or indicated of the central idea" (Smith and Associates, 1990, p. 49). Concept mapping enabled the researcher to group similar examples of large concepts together, and smaller concepts were set aside until they could be integrated into the larger themes; this process allowed the dominant themes to emerge from the data. The similarity of the process of the information gained in the case studies made possible the rich, descriptive data needed to interpret the phenomenon being investigated (Merriam, 1988).

Limitations of the Study

Since the study was limited to the training techniques used in one organization, the study does not attempt to predict if this information is utilized by all workplaces. Although case studies can lead to deeper insights into this area of the study, findings from case studies cannot be generalized in the same way as the findings from random samples. For this reason, this research should lead to further research on the subject.

Results and Findings

The results provided information and data that lead to deeper understanding on all three research questions. This section reviews statements by participants that describe the effect that utilizing adult learning principles in training had on employees in the organization.

Andragogy

Role of Experience. First, one of the key principles of Andragogy by Knowles (1980, 1995) is the role of the learner's experience. Andragogy assumes that adults come to situations with a depth and breadth of experience than can be used as a resource for theirs and other learning (Knowles, 1980, 1995). Participants commented that the CEO and SMT in the organization use several training techniques to draw upon the life experiences of their employees. One participant said:

Employees regularly attend meetings where they lis ten to tapes from inspirational people such as: Dr. Wayne Dyer, Anthony Robbins and Depoc Chopraw. After they have reflected on how the story in the tape parallels their own experiences, they are asked to share a story from their life experiences in relationship to tapes with other employees and explain what they learned from the tapes.

The CEO commented:

I believe that listening to tapes is a great way to learn and see the connections with your life/work.

One participant's statements reflected those made by many employees:

By reflecting and sharing my experiences with others, I realized how valuable my past experiences are to my work.

Readiness to Learn. A second tenet of Andragogy, states that adults learn more effectively when they see that the information is relevant to their lives, and it assumes that the facilitators need to help adults see how the training or courses can help them perform more effectively in their jobs. Throughout this study, participants discussed how the organization provides learning opportunities that help employees see how their learning improves their performance at work. One participant said:

Once a month, famous speakers are asked to come in and discuss the changes and challenges in the business. Afterwards, we analyze how the information can improve our work. This is terrific way to learn.

Another participants added:

Speakers provide many new ideas in the business, and a discussion afterwards allows us to tie the information to our work. We have the opportunity to network and learn from knowledgeable people in the field.

Orientation to Learning. A third tenet of *Andragogy* according to Knowles(1980, 1995), is that adults are problem-centered rather than subject centered. Adults need to know why they are learning new skills, acquiring new knowledge, or changing their behavior and they want explanations of how the proposed learning will benefit them. The implication for this is that learning experiences should be organized around tasks or problems (Knowles, 1995). A member of the SMT explained how they solve problems as part of a team:

The CEO and the SMT hold a luncheon meeting each month, in which each member of the team presents pertinent details of all current projects that they are working on in their department, and then, the team members get the opportunity to analyze how their work will contribute to the success of the project. For example, the marketing department will review how it will create a marketing campaign for the organization. We all learn from the experience. Sharing ideas with team members, is a terrific way to get new ideas and solve problems.

Another participant added:

When I am working on a problem, I collaborate with other employees or ask for advise from the CEO. Collaboration really helps me gain insight and learn. All employees work well in teams from wait staff to SMT. Each department holds formal and informal meetings where they share ideas to solve problems as part of a team.

Motivation to Learn. The third tenet of *Andragogy* is that adults are *motivated to learn*. Knowles (1995) asserts that although adults will respond to some external motivators such a job promotion or a change in technology, he proposes that the most powerful motivators for adults are internal motivators such as: self-esteem, recognition, self-confidence, self-actualization, and he suggests that training should emphasize these kinds of benefits. One participant said:

> We are motivated to learn because of our personal needs, also, because continued learning, creativity and innovation are valued in our organization. We are encouraged to attend courses and join organizations.

One participant added:

> Our organization holds dinner meetings of professional organizations at work. We are encouraged to attend and serve in leadership positions of the organizations. It is a very convenient, and it is a productive way to learn and to network. It gives me an a opportunity to meet others in my field and stay up on new ideas without traveling.

Another participant added:

> I really appreciate that my boss realizes my personal motivation to learn and provides many opportunities for continued learning and networking in the field. The Organization has also established programs to help employees pursue their independent learning projects. We have a Corporate Library where tapes, journals and books are available, and employees are encouraged to use the material.

It was apparent from statements made from participants that the CEO and SMT in this organization not only values continued learning, but they also recognize the personal motivation of their employees. The CEO stated:

> This year I encouraged employees to read: *Jesus CEO: Using Ancient Wisdom for Visionary Leadership* by Laurie Beth Jones published in 1995; reading is a wonderful way to learn. Also, you encompass people and make them feel valued and part of a team. And, I encourage for my teammates to be self-reliant, to be innovative, to not just do what is listed on the job description, but to create their own goals, their own visions and to be self-motivated. Anybody will do what the boss says. It becomes a checklist and you do those ten things. But it is when you go to item number 11, 12, 13, 14, 15, goals that you have placed on yourself for your own self-development in your own department, where you develop beyond the scope of the job, and I see employees do that in every single department.

Experiential Learning

Experiential Learning by Kolb (1984) is another concept that focuses on experiences as a basis for learning new ideas. Kolb (1984) explained that in addition to adults having had many rich life experiences, it is well established that they learn from experiences. Kolb proposed that learning is a process where knowledge is created through the transformation of experiences, and that often, learning is a four-part process. According to Gilley and Maycunich (2000), "experiential learning can enable learners to develop highly complex cognitive skills As such as decision making, evaluating, and synthesizing, to sharpen interpersonal communication skills" (p. 128). One participant explained how they learn from experience:

> In spring of this year, we took the wait staff from busboys to the dining roommanager of the restaurant to a Winery in Illinois, and they learned all about wines. Then, they used what they had learned in their jobs.

Another participant stated:

> This Spring, we also took the chefs from the restaurant to New York, and they toured many of the fine dining restaurants. After each trip, employees had the opportunity to reflect on their experiences and share what they had learned with each other. Then, they were able to use the information to solve problems at work.

One participant noted:

> Trips allows us to really experience and see first hand many practices that we can incorporate into our organization. We really learn from these experiences, because it gives us the opportunity to reflect on experiences, and share experiences with my coworkers. Then, we are able to apply the information directly to our current jobs.

Humanism

The third adult learning principle practiced in this organization was "*Humanistic Philosophy.*" Based on the work of Carl Rogers (1974) and Maslow (1970), one needs to place a high value on human beings. The Humanism stressed the importance of valuing employees and satisfying their needs in the workplace; it has been voiced in the literature of human resource development by several authors (Knowles, 1995; Gilley and Maycunich, 2000; Gilley and Eggland, 1989).

Humanist philosophy describes how people want to learn to improve their fit with the organization so they can progress in their career, and they should be encouraged to develop their potential (Wilson 1999). The CEO's statements reflected thoughts made by several participants on how employees are made to feel part of a family:

> We are all part of a family here. Everyone is invited to the corporate dining room from top executives through maintenance people. We are all equals. No one feels less than an executive here, from the janitorial people to top executives. We all sit together, and no one is made to feel like less than a CEO.

Another participant confirmed this thought:

> I feel that my contributions are of value to the organization; I really feel part of the organization. Although we have all the departments necessary to provide integrated services, we work together as one team.

Humanist's theories also recognize that people respond to a stimulus or need to upgrade their skills in order to keep their jobs (Wiltsher, 1999). In Spring of 2001, the organization was able to retain all its employees using this approach during difficult economic periods in the United States. One participant expressed:

> In spring of 2001, when the economy was experiencing a recession, the restaurant was closed for remodeling. To keep valuable employees, thirty employees remained on the payroll and came in during normal working hours from Monday through Friday for training sessions to learn about all aspects of the business. This allowed us to keep our jobs. Normally, we would have been forced to take other jobs; because of this, we are loyal to the organization.

Another participant added:

> In the restaurant business, very few organizations value their employees enough to keep them on the payroll in hard times, especially employees such as myself, who do not have much work experience or background in the business, but I was able to stay and learn about the business. This increased my desire to work for this organization.

Research supports that loyalty is very important in an organization, and that the culture of the organization should embrace the Humanistic Philosophy (Gilley and Eggland, 1989). During the research, several participants described how loyal the CEO and SMT of this organization are to its employees. The CEO expressed her philosophy:

> What makes a company are the teammates; I am loyal to them, and they are loyal to me.

Another participant made statements that were reflective of thoughts made by many of the employees:

> Our CEO knows when people are going to work hard, and she values her people. It cost the Organization a tremendous amount of money to keep people during this period, but she believed that her people were essential to growth of the company. In my experience, it unusual to work for an organization that values all its employees.

Transformative Learning Theory

The Fourth principle of adult learning practiced in this organization is *Transformative Learning Theory* by Mezirow (1978, 1991). "Adult learning can be viewed as an interpretation of information utilizing one's existing set of expectations through which meaning and ultimately one's life are constructed (Willyard and Conti, 2001, p. 325). By sharing personal experiences and asking questions, employees can grow and develop (Gilley and Maycunich, 2000). The company holds both formal and informal meetings in which employees have the opportunity to ask questions and to converse with other employees from all levels of the Organization. One participant said:

> At the recent training sessions for all the employees at the restaurant, many employees were not really sure what different departments such as the marketing department did. Employees watched videos, prepared reports; executives and managers of each department made presentations about the functions of their department. I was able to explain what the marketing department did for the restaurant. Employees were able to ask questions and learn about every aspect of the Company. We have a better informed and trained workforce, and employees see how they can be of value in the organization.

Another participant added statements that were similar to those made by many employees:

> After reflecting on what I had learned at the meeting, I was not only able to do my job better, but I saw how I could perform other jobs in the company. I am now taking courses at a cooking school, as well as examining other jobs.

It is very rare that someone like myself with limited formal education and job experience, who works in a position in the wait staff at a restaurant, has the opportunity to work and learn from employees throughout an organization. I feel more qualified and confident in my abilities, and I see many opportunities for growth in my career.

One member of the SMT reported:

> I have observed how employees have learned new ideas, and it has improved their performance on the job.

Literature on Transformative Practices supports ideas that open, honest, communication enables employees to learn and develop by allowing them to examine and reflect on their work (Gilley and Eggland, 1989). Employees often

share information informally in employee' offices or at luncheon meetings held in the corporate dining room. The CEO said:

Our philosophy is an "open door policy," and it is practiced by everyone in the Company. For example, I have a list of what I am now working on my computer in my office, and I encourage employees to come in and look at the list and share what they are working on with everyone. Sharing ideas with others leads to problem-solving.

Another participant added:

I feel comfortable in sharing information on my desk and on my computer with other employees. This Organization instills loyalty and trust that is practiced by everyone; we solve problems as part of one team.

Conclusions and Recommendations

The following section summarizes data and provides an analysis of participants' statements:

First, this study suggests that the training practices increased employees' understanding of the business and their ability to improve their performance on the job. The results indicated that the following training practices aided them in these endeavors: sharing life experiences in story telling, field trips, and monthly formal and informal meetings. Both the SMT and employees responded in interviews that employees learned as a result of these training practices. Employees reported feeling more qualified and confident, and the SMT reported that they observed employees' improved job performance. Further research could examine how the training techniques in this study could be used to increase participants' learning and training effectiveness in other organizations. This research supports ideas in the literature (Knowles, 1995; Willyard and Conti, 2001).

Second, this study affirms the importance of utilizing adults' life experiences in training. The study examined adults' life experience through three adult learning concepts: (1) Knowles, concept of Andragogy, was used effectively when employees shared their rich life experiences after listening to tapes, (2) Kolb's 4-step learning cycle was employed when employees' learned through trips to wineries and restaurants, and (3) Mezirow's Transformational Theory was effectively used both in the formal and the informal training practices with employees from all levels of the organization. Participants statements confirmed that they not only learned from examination of their past experiences, but that the new experiences also led to valuable new learning. Many of the practices used in this organization could be used in many other organizations.

Third, this research illustrated the connections in training, learning and development. Participants continually commented that the training practices allowed employees to feel valued and essential to the success of the organization. Furthermore, participants statements indicted that these practices promoted continued development of employees and high involvement in work processes. For example, employees ate lunch with each other in the corporate dining room daily. This practice enabled employees to get to know each other, ask questions and share their ideas. Also, employees felt valued when they were kept on the payroll during the remodeling of the establishment, and they received training on the operation of the business. Normally, when a restaurant is closed for any reason, employees are terminated. Statements made by employees illustrated how this made them feel valued, and it also increased their desire to work for the organization. Several participants credited these practices for attracting and retaining its employees and the continued growth of the organization.

Fourth, participants' statements indicated that the training practices described in this study promoted collaboration, teamwork and problem solving skills, "which is becoming a fundamental requirement of work" (Willyard and Conti, 2001, p. 330). Participants reported learning in various shared learning experiences and collaboration through monthly team meetings, group collaboration and informal communications. According to several authors, (Gilley and Eggland, 1989; Gilley and Maycunich, 2000; Knowles, 1995), these skills are required in today's workplaces.

Finally, the data from this study indicated that the support of top management in an organization can increase the learning and development for employees; this theme has been written about by several authors (Knowles, 1995; Gilley and Eggland, 1989; Gilley and Maycunich, 2000; Watson and Marsick, 1993). The CEO and the members of the SMT encouraged employees to share information with employees from all levels of the organization. Further research should examine how the support of top management of an organization increases or impedes the application of adult learning strategies in training programs.

How Research adds to AHRD and Recommendations for Further Research

This study adds to the field of HRD by examining theory and practice in the restaurant business. As in this study, "the role of training has broadened beyond training. Trainers are increasingly being asked to create systems to motivate employees to learn, create knowledge and share that knowledge with other employees in the company" (Noe, 2001, p. vii).

The underlying theme that emerged from this study appeared to suggest that individuals not only learned from using different approaches to learning from experience through trips, life experiences, story telling, collaboration, but that these practices benefited the organization. Although the CEO, SMT and employees often used different words and examples to describe their perceptions of how they learned and how the learning was applied in the workplace, patterns arose from that data of the participants that confirmed that the transfer of learning did occur. This research also suggests strong connections with the training practices used and the learning, development and high involvement for participants in their work. Support of top management was an important component for success using these training practices. Also, these training practices using life experiences promoted learning and problem solving which are essential in today's workplaces.

Future studies should focus in more detail on how training principles used in this workplace can advance these factors. As we continue to spend billions on training and human resource development, it is important to examine how the theory is being used in practice. Expectations that the role of trainers will continue to expand to meet learning challenges for employees in the workplaces, basic concepts, theories, and principles of adult education in this research provides in formation that can add to literature of HRD.

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The Legacy of Malcolm Knowles: Studying Andragogy Andragogically

Mary Boudreaux
Louisiana State University

Thomas Chermack
University of Minnesota

Janis Lowe
Louisiana State University

Lynda Wilson
Louisiana State University
University of Phoenix

Elwood F. Holton III
Louisiana State University

This paper describes the examination of a portion of Malcolm Knowles personal correspondence. This paper also details the unique journey of four graduate students as they struggled to understand andragogy and the man who developed it, using the methods and approaches that he advocated. This study does not intend to reach any conclusions about the father of andragogy. It does however present examples of Knowles' correspondence and outlines content themes, which emerged as a result of this research project. The end product of this research was the creation of a database that may be accessed for further research and study into the life of Malcolm Knowles.

Keywords: Andragogy, Adult learning, Malcolm Knowles

When Malcolm S. Knowles, father of andragogy, passed away in November 1997, he left behind a great legacy of his work for all who study the field of adult learning and Human Resource Development (HRD). At the time of his first official retirement from North Carolina State University, portions of his personal and professional correspondence as well as much of his library were donated to Syracuse University. In January 1999, his heirs donated the remaining portion of his personal and professional legacy to a professor of Human Resource Development at Louisiana State University (LSU). The donation consisted of his personal library, personal correspondence, date books, articles, workshop materials, and lecture notes. Most of this work was dated from the last twenty years of his life.

In September 2000, four LSU graduate students in the HRD doctoral program, enrolled in an independent study course to explore adult learning theory. During a description of course objectives, the availability of the Knowles' collection was discussed as a rich resource for a potential andragogical project. Several qualitative research projects were discussed including analysis of his book collection, lecture notes, articles, and personal correspondence. The students and professor decided upon a team project consisting of an exploratory content analysis of correspondence personally written by Knowles. The ultimate outcome of the research project was the creation of a database that would be available for future research and scholarly study.

The purpose of this paper is to describe the qualitative project and the andragogical process undertaken. This paper will report the research methodology utilized, identify themes that emerged from the content analysis and provide descriptions and quotations from each identified theme category. This paper also describes the unique experience of the student research team as they explored the personal correspondence of Malcolm Knowles using an andragogical process.

Theoretical Framework: The Project and the Learning Process

Andragogy is a set of core adult learning principles that apply to adult learning situations (Knowles, 1994). Malcolm Knowles spent the majority of his life linking these principles into a theory he entitled andragogy. The six core principles of andragogy include: 1) the learner's need to know, 2) self-concept of the learner, 3) prior experience of the learner 4) readiness to learn, 5) orientation to learning, and 6) motivation to learn (Knowles, Holton, & Swanson, 1998). Other factors that affect adult learning are individual learner differences, situational differences, and goals and purposes of learning. Andragogy works best in practice when it is adapted to fit the uniqueness of the learners and the learning situation (Knowles, Holton, & Swanson, 1998).

The Project

This section describes the project itself in terms of data collection and data analysis. Some preliminary data are presented to describe the project and its purposes. A more thorough presentation of findings appears after the process used by the authors is described in detail.

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Data Collection. There were six file drawers of personal correspondence containing letters between friends, family, students and colleagues. "Personal letters between friends and family members provide a source of rich qualitative data" (Bogdan & Bilken, 1982, p. 99). Bodgen & Bilken state, "The phrase *personal documents* is used broadly to refer to any first-person narrative produced by an individual which describes his or her own actions, experiences, and beliefs." (p. 97). Allport (1942) suggests that a review of personal written documents or material reveals a person's view of experiences.

Correspondence was sampled according to the qualitative data collection method for personal documents espoused by Bodgen & Biklen (1982). Five criteria were used to screen pertinent pieces of correspondence. These criteria included any letter that pertained to Knowles' philosophy, andragogy, family, learning, and mentoring. Only letters written by Knowles were sampled. However, letters written to Knowles may have been selected to provide further clarification or explanation. Additionally, text written by Knowles and text sent for Knowles' review were not included in the sample. Approximately one-third, or about 360 letters, of the entire correspondence collection were selected for team review and analysis. All selected letters were photocopied so as to preserve the integrity of the original documents.

The team used Bogdan & Bilken's (1982) process of developing coding categories. The team read through the data keying in on, "certain words, phrases, patterns of behavior, subjects' ways of thinking, and events" (p. 156) that were repeated and/or stood out. A coding system was developed to identify categories representing topics and patterns that emerged from the correspondence. Descriptive data collected was sorted so that the "material bearing on a given topic could be physically separated from other data" (Bogdan & Bilken, 1982, p. 156). The process of collection and coding began with an initial review of the 360 letters by each team member. The correspondence sample was divided into four sections, which were reviewed and circulated by all four team members. Passages or phrases, which met the criteria stated above, were highlighted for further data analysis.

Data Analysis. Data analysis was conducted according to Guba's comparative pattern analysis methods (1978). Guba (1978) suggests looking for recurring regularities in the data and sorting data into categories. "Categories should then be judged by two criteria: internal homogeneity and external heterogeneity" (1978, p. 53). Internal homogeneity refers to the extent to which the data that belongs in a certain category hold together, while external homogeneity concerns the extent to which differences among categories are clear (Patton, 1990). The researcher then works back and forth between the data and the categories, verifying the meaningfulness and differentiation of the categories (Guba, 1978).

From this first stage of analysis common themes began to emerge in Knowles' writing. The project team began to capture the themes on 3x5 cards. From this exercise, 37 themes emerged and several overarching categories appeared which lead to the formulation of five major categories. Some themes appeared in more than one category to reflect different perspectives on the same idea. The five categories included: professional, learning, philosophy, personality, and personal. The project team established internal and external homogeneity (Guba, 1978, Patton, 1990) through an iterative process encompassing data analysis, category creation and lively debate. Originally thirty-seven themes emerged with some themes appearing in more than one category to reflect different perspectives on the same idea. Through a reiterative process of cycling between the data and the categories, the researchers refined the meaningfulness of the themes that emerged and made adjustments (collapsed or expanded categories) as was directed by the data (Guba, 1978).

Once the initial categories and themes were recorded, the team reviewed each highlighted passage and assigned it to the appropriate theme and category. For example, a mention of a Knowles book in the correspondence would receive a code of 1-B. New themes and categories were established as the passages dictated. Categories and themes were added or collapsed in order to reflect an accurate representation of the correspondence. Figure 1 provides the complete listing of themes and categories developed.

Once the final categories and themes were revealed, the passages were ready to be entered into a database. Several options were considered, and upon the consultation of a local database expert, Microsoft Access was chosen. An initial form was created for data entry, and the team once again divided the correspondence to share the work of data entry. Form fields included: letter number, date of letter, recipient of letter, recipient organization, location, theme codes, passages, and frame of reference. The passages were input exactly as typed by Malcolm Knowles, including spelling, grammatical and typographical errors. After the completion of data entry, two stages of data verification were completed. The first involved ensuring the accuracy of the input of the passages and coding. The second involved reviewing each passage for clerical errors; correct assignment of codes, and to ensure the correspondence was preserved in its original format.

Figure 1. Final Themes and Categories of Knowles Personal Correspondence

Category 1	Professional	Category 4	Personality
	A – Accomplishments		A – Personality
	B – Books		B – Ego
	C – Fielding		C – Wit and Humor
	D – Travel		D – Politics
	E – Retirement		E – Tone of Letters
	F – Royalties		F – Warmth, Kindness and Encouragement
	G – Practice/Workshops		
	H – NOVA	Category 5	Personal
	I – Moves		A – Family
	J – Marketing Strategies		B – Wife's Illness
	K – Legacy		C – Wife's Role in Career
	L – Personal Research		D – Friends and Colleagues
	M – Mentors (His)		E – Health
	N – Review of Others' Work		F – Moves
	O – Opinion of Others		G – Retirement
Category 2	Learning	Category 6	Field of Adult Education
	A – Teacher vs Instructor vs Facilitator		A – Trends
	B – Motivation		B – Future
	C – Learning Contracts		C – Application
	D – Expectations as a Learner		D - Technology
	E – Learning		
	F – Mentors/Mentees	Category 7	Closings
			A - Closings
Category 3	Philosophy		
	A – Andragogy		
	B – Direction of HRD		
	C – Futurist		
	D – Philosophy		
	E – Suggestions		
	F – Research		
	G – Practitioner vs Scholar		
	H – Technology		
	I – Mentees		
	J – Teacher vs Instructor vs Facilitator		
	K - Priorities		

The Learning Process

As the four students in this course began cataloging Knowles' personal correspondence, they discovered several handouts and other teaching materials that had been created and used by Dr. Knowles. One such teaching aid was entitled, "The Assumptions and Process Elements of the Pedagogical and Andragogical Models of Learning". In this handout, Knowles compared and contrasted the differences between pedagogical and andragogical learning. Knowles suggested in his handout "these two models do not represent bad/good or child/adult dichotomies, but rather a continuum of assumptions to be checked out in terms of their rightness for particular learners in particular situations."

In the original handout, Knowles described seven process elements of andragogy (See Figure 2). Subsequent literature outlines eight factors that are to be considered in the design of an adult learning experience (Knowles, 1995; Holton, Swanson, & Naquin, 2000). The learning process is described here according to all eight elements.

Figure 2. Process Elements of Andragogy

Process Elements		
Element	Pedagogical Approach	Andragogical Approach
Preparing Learners	(Not addressed in Knowles handout)	Provide information, prepare for participants, help develop realistic expectations, begin thinking about content
Climate	Tense, low trust, formal, cold, aloof, authority-oriented, competitive, judgmental	Relaxed, trusting, mutually respectful, informal, warm, collaborative, supportive
Planning	Primarily by teacher	Mutually by learners and facilitator
Diagnosis of Needs	Primarily by teacher	By mutual assessment
Setting of Objectives	Primarily by teacher	By mutual negotiation
Designing Learning Plans	Teachers' content plans, course syllabus, logical sequence	Learning contracts, learning projects, sequenced by readiness
Learning Activities	Transmittal techniques, assigned readings	Inquiry projects, independent study, experiential techniques
Evaluation	By teacher, norm-referenced, (on a curve), with grades	By learner collected evidence validated by peers, facilitators, and experts. Criterion referenced.

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Preparing the Learners. The course was initially designed as an independent study course. In reviewing these process elements, it is clear that they were manifested in the course from the beginning. The first class meeting met all of the andragogical approaches in preparing the learners. The professor provided information about the course, general expectations were made clear, possibilities for participation and collaboration were offered, and exploration of the content was discussed.

Creating the Climate. Because the course was formulated in an independent study format, the group was mostly responsible for creating the climate. However, the professor played a key role by demonstrating his trust in their academic abilities. One student commented the facilitator (professor) empowered the group by demonstrating confidence in their ability to be self-directing and to accomplish their goals. Another student stated that the professor, being a true facilitator, did not impose his "educational will" on the students, but rather served as consultant for the project. Throughout the course, all of the andragogical approaches to climate were present including a relaxed, trusting, informal, warm, supportive, collaborative and mutually respectful environment.

Planning. The group conducted its own educational experience planning. However, occasional meetings were held with the facilitator to solidify the project's path and obtain suggestions for proceeding. One student stated that periodic input was needed from the professor, but more as a guide than as a tool to "force his research will" on the group. These meetings involved a team analysis of the materials available for review, thoughts on the most efficient way to approach the subject, research methodology options, and ways to satisfy learner needs, interests, and objectives.

Diagnosis of Needs. Diagnosis of needs, setting objectives, and designing learning were all steps completed through mutual assessment and negotiation among group members and with the facilitator. Although there were no written learning contracts, learning objectives were identified through the project the professor and students had chosen to complete. The most difficult part of the course was deciding on a learning project.

Setting of Objectives. The group brainstormed project possibilities, considered individual learning outcome expectations, and compared learning style differences. The group understood that they had at their fingertips something special with the Knowles' collection. However, initially its contribution to the group's learning experience was somewhat unclear. One student debated the value of such a project due in part to her background and mental model of research being grounded in quantitative research. Another student seemed to agree when she commented that the group brought to the table its educational research biases and schema. Another student found that the group's "reservoir of experiences" was a definite plus in the exploration process of the life of the "father of andragogy".

Designing Learning Plans. One major cause of frustration for the group was the fact that this was the group's first totally andragogical learning experience. Most of the group members exhibited some discomfort with the lack of structure and direction associated with the nature of the learning project. One student's frustration was evident when she remarked that she was "most uncomfortable with the ambiguity that comes from no direction from an instructor". Another student described the first few meetings as though she was "moving through the learning process blindfolded, feeling the way as she went." The andragogical learning process was not an easy one, at first.

Several students commented that the composition of the group was complimentary and critical to the overall direction of the learning experience. Two of the students were firmly grounded and biased toward quantitative research, while the other two were comfortable with either a qualitative or quantitative research direction. The difference in views of research turned out to be positive. One student remarked that the two students who exhibited an appreciation of and comfort level with qualitative research were able to "create a vision and excitement" for the Knowles research project. The two students, both grounded in quantitative research, remarked that it was a "stretch" to embrace the project in its early stages, but the direction became clear as time passed. One student commented that the group's ultimate success was due to their ability to "work within our strengths and demonstrate patience and understanding when weaknesses were evident." Yet another student stated that "tension existed between meeting group and individual needs as well as meeting all course expectations." While some group members initially struggled with the lack of structure and direction, they quickly became self-directed when our project began taking shape.

Learning Activities. Learning activities were discussed. In actuality, they were lively debated. As one student said, "it also took some time for the group to become fully understanding and respectful of each other's individual

differences, but I don't think anyone ever felt rejected or hurt by our dialogues." Finally, jointly decided-upon activities were outlined, and a tentative timeline was developed. Learning activities included reviewing the correspondence, creating a paper database, scanning and reviewing the correspondence for themes, categorizing, labeling, constructing a computer database, proofing, and finally, reviewing the data obtained.
Many hours and substantial group revisions were necessary to complete these activities. The group entered the performing phase through the learning activities (Tuckman, 1965), and one student commented that the professor/facilitator came to the group's "educational rescue whenever a research roadblock surfaced."

Evaluation. Regarding the last process element of evaluation, several discussions were held among the students and with the facilitator to discuss the criteria. There was some concern regarding the ambiguity related to the determination of final grades by those students most comfortable with a traditional method of learning. Evidence of learning for this group would come from a final exam and through examination of the group's final project: a complete and accurate database, an outline of the research methodology, the submission of all materials produced, and a sampling of the database reports.

Each student commented on the value of having this learning experience. One student remarked, "I have exceeded my personal learning objectives for the course". Another student commented, "For the first time, theories/models came alive." Experiencing andragogy first-hand was proof that engaging adult learners in the entire learning process was of value and produced positive learning outcomes. One student remarked, "as was evident in my experiences in this course, andragogy is flexible enough to be used effectively in group situations, and because of the flexibility inherent in the model, andragogy deserves to be a core part of learning design in HRD."

Presentation of Data

Malcolm Knowles came back to life for each of the team participants. His warmth, understanding, consideration, and love for adult learning were obvious in his personal correspondence. There were 356 piece of correspondence used to develop the database. Seventeen (17) of the pieces of correspondence were from 1951-1979. The majority of the correspondence (180 pieces) occurred between 1980-1989. The remaining 159 pieces were written between 1990-1997.

Seven Emergent Themes

According to Guba (1978), the task of converting the passages or phrases found in Knowles' personal correspondence into systematic categories is a difficult one and no infallible procedures exist for performing it. The coding system used to organize the descriptive data that was collected consisted of seven categories with 37 themes as shown in Figure 1. The seven categories were based on Malcolm Knowles the person: his professional life, his strategies for learning, his philosophy for learning, his personality, philosophy for life and learning, his relationships with friends and family, his futuristic approach to adult education, and his closing remarks in his correspondence. Category 1, "professional", had the largest number of passages or phrases coded with 29 percent. The number with the smallest number of passages or phrases coded was "field of adult education" with six percent. Only three pieces of correspondence did not have some type of closing remarks, category 7.

Descriptions and quotations are the essential ingredients of qualitative inquiry (Patton, 1990). Based on the categories that were developed, there were some 1,429 entries that became part of the database. A breakdown of these entries by category is shown in Figure 3.

Professional Life and Legacy. In Category 1, the team looked at Knowles' correspondence relating to his professional life and his numerous accomplishments. His correspondence reflected his interest in writing as well as his desire to assist others in their writings by reviewing their works. In his letter of October, 1989 pertaining to materials for an advisory panel meeting he writes "I have read them carefully, mostly on airplanes to and from Seattle, and I am impressed with their comprehensiveness, clarity, and scholarliness." In another letter of September, 1990 he writes "I started reading (name of book). . . last night and could hardly put it down to get some sleep. I took it up again right after breakfast this morning and am feeling exhilarated. What a beautiful piece of work. So well written. So very comprehensive." He was adamant about shaping the marketing strategies for his books and he kept detailed records of his royalties. He traveled all over the world to countries such as Australia, Japan, Sweden, Korea, Okinawa, Malaysia, and Thailand as well as the United States to attend conferences, make presentations, and conduct workshops as noted in the letter Knowles wrote in May, 1982: "Since my retirement from NC State University two years ago I have been doing an average of four faculty-development workshops each week in community colleges and universities across the country. Attendance at these workshops averages between 300 and

400 participants each week". This passage reflects Knowles personal work ethic and commitment to the field – where in actuality he did not "retire" when he left "official" employment but continued to have an active professional life. Even in March, 1994 he was staying active and in contact with students. He wrote "I am keeping some contacts with students by doing an 8-session-per-semester research seminar at the U. of Ark." In another letter during the same time period he wrote "I still do some writing–mostly doing forewords to other people's books–and very occasional traveling." In January, 1995 Knowles admits that he was beginning to slow down: "I donated my computer to an adult school a couple of years ago, so am even off the information highway."

Figure 3. Number of Entries by Category in Knowles Personal Correspondence

Category 1	Professional	# Entries by Code	Category 4	Personality	# Entries by Code
	A – Accomplishments	43		A – Personality	110
	B – Books	129		B – Ego	69
	C – Fielding	86		C – Wit and Humor	62
	D – Travel	72		D – Politics	9
	E – Retirement	22		E – Tone of Letters	175
	F – Royalties	18		F – Warmth, Kindness and Encouragement	169
	G – Practice/Workshops	63			
	H – NOVA	4	Category 5	Personal	
	I – Moves	5		A – Family	21
	J – Marketing Strategies	37		B – Wife's Illness	47
	K – Legacy	10		C – Wife's Role in Career	19
	L – Personal Research	12		D – Friends and Colleagues	50
	M – Mentors (His)	13		E – Health	15
	N – Review of Others' Work	153		F – Moves	13
	O – Opinion of Others	118		G – Retirement	36
Category 2	Learning		Category 6	Field of Adult Education	
	A – Teacher vs Instructor vs Facilitator	14		A – Trends	32
	B – Motivation	22		B – Future	27
	C – Learning Contracts	42		C – Application	87
	D – Expectations as a Learner	7		D - Technology	4
	E – Learning	54			
	F – Mentors/Mentees	59	Category 7	Closings	
				A - Closings	353
Category 3	Philosophy				
	A – Andragogy	53			
	B – Direction of HRD	14			
	C – Futurist	17			
	D – Philosophy	82			
	E – Suggestions	112			
	F – Research	38			
	G – Practitioner vs Scholar	10			
	H – Technology	12			
	I – Mentees	4			
	J – Teacher vs Instructor vs Facilitator	2			
	K - Priorities	52			

Learning. In Category 2, we looked at his correspondence related to learning. Knowles was a proponent of the use of contract learning for many of his classes. In November, 1981 he wrote: "I am in the process of putting together a book on contract learning which I am building around a collection of learning contacts actually developed in the field." Knowles also believed that mentoring was an important part of the adult education experience. In August, 1989 he writes: "Yes, I would be comfortable with ten (or perhaps even twelve) mentees. Since I am cutting down somewhat on my travel–at least on the length of my trips–I can give a little more time to assessments, dissertations, and other mentoring. An yes, I would be willing to serve as an assessor in Human Development." Knowles' comments in his letter July, 1990 truly reflect his feelings of the reward from teaching and also from his students: "As you no doubt have already discovered, the achievements of one's students are the chief psychic reward of a professor." Even in his final months (letter dated March, 1997), Knowles acknowledged his desire to continue a mentoring relationship, however his health would not permit.

Philosophy. Knowles' philosophy for living and working was examined in Category 3. His philosophy carried over into the learning and adult education categories. When asked to provide information on his philosophy in March, 1991 he responded "I think the easiest way for me to give you an update on my philosophy is the lend you the enclosed boo, THE MAKING OF AN ADULT EDUCATOR, 1989." Knowles willingness to help others and to set priorities was part of his philosophy of life. In 112 entries he makes suggestions to the correspondent. Such a

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suggestion is found in his letter of August, 1990: "I have reread the three pieces of your writing that you sent me on June 20, and they are very congruent with the guidelines I have for myself: (1) Talk out of my personal experience rather than from a pedantic podium. (2) Avoid pontificating. (3) Illustrate generalizations with examples. (4) Select a handful of people you know who are representative of the audience you are trying to reach and dialog with them. (5) Think of writing as a form of self-expression, like painting a picture,–as a way to have some fun."

The setting of priorities changed for Knowles after he retired. He stated in his letter of February, 1986: " Within a couple of years I found myself accepting assignments in which I really wasn't interested merely to cover the overhead and spending more time that I wanted to on administrivia. . . . I am so enjoying my freedom since retiring from the university–doing only what I want to do and do best, and doing it for myself–that I wouldn't want to pull myself into a position of becoming obligated to doing things to support institutional overhead."

Personality. In Category 4, Knowles' personality, wit, and humor were examined in his personal correspondence. "I stamped him 'approved' with the award of The Malcolm Knowles Seal of Andragogy." His warmth was revealed in his letter of January, 1984 in which he states: "Above all, though, know that I love you and respect you, and worry about something that I don't understand. I need you to love and respect me, too, and help me understand." He did enjoy politics and commented on President Clinton's stand on issues on several occasions. Knowles wrote to President Clinton in February, 1993 and provided the following comments: "The fact that the concept of lifelong learning was mentioned so often by the presenters and in the discussion has led me to believe that the enclosed document *Creating Lifelong Learning Communities*, might be useful to the people who will be planning the educational proposals for the new administration. I am also enclosing a contribution to support the work of the transition team and confirm my enthusiasm for the start is has made. I prepared the document for a task force of the UNESCO Institute for Education about ten years ago, and it has been cited frequently in the educational literature. I am enclosing a brief biographical summary simply to establish my qualifications for writing on this subject." There was a certain format that he used in writing. He always offered a positive comment in the first sentence, then he provided suggestions, and finally, he would close based on what seemed to be the level of friendship that existed between him and the recipient of the correspondence. The team really felt his presence through his writings.

Family, Friends and Colleagues. In Category 5, we discovered the meaning of family and friends to Knowles. He and his wife had worked on several books together and traveled together to conferences. She was his "right hand". Therefore, when she became ill and couldn't travel anymore, it was an extreme disappointment for him. Their first retirement was in North Carolina. However, he eventually retired to Arkansas in order to be close to his son and family as his own health began to fail. Knowles wrote of his family situation in February, 1994: "We, too, would be much happier living in Cambridge. We feel so good about living five minutes from our son and his family. We have one grandson in his second year at Harvard and a granddaughter who is going there next year, so we would have family in Cambridge, too. During the last several years I have cut down greatly on my travel, since Hulda can't go with me any longer." In September, 1994 he writes of his relationship with his wife: "Hulda and I are doing just fine, enjoying being lovebirds in our eighties." In correspondence in January, 1995 he admits to being fully retired: "I'll be eighty-two next August, and am now fully retired and living in a life-care home with my wife, who is the same age and very disabled from a stroke she had eight years ago. So I don't give any more speeches, attend conferences, or travel further than to the supermarket." He further provides insight into his retirement in April, 1995: "As you probably know, I am no longer traveling, so the mailman is my primary contact with the outside world."

Field of Adult Education. Category 6 primarily referred to the field of adult education, the changes that were taking place, and the technology that was providing more opportunities for adult educators. In correspondence of November, 1981 Knowles writes, "The last time I was in Columbus I picked up the folder describing options and was terribly impressed by the imaginative way you folks are meeting the needs of nontraditional students." In correspondence of April, 1983 related to a grant application he states "I think that your project is the most exciting approach to reorienting elementary education to self-directed learning that I have seen." The importance of andragogy can be seen in his correspondence of February, 1986 where he writes: "I have been thinking (in between other tasks) about your idea of starting an Andragogy Institute, and am ready to start sharing ideas. I see this though as only starting a dialog–not presenting a plan. . . .I have lots of evidence that there is a growing need for this kind of service as higher education institutions experience and influx of adult learners and as industry expands its human resource development programs. I can visualize that if we created an Andragogy Institute I could train a cadre of people to do what I do so it wouldn't be dependent upon my availability, interests, or ingery." Knowles' letter in

February, 1989 wrote of an institution with an external degree program that he was associated with and considered a model for future graduate education "...for the simple reason that they make it possible for experienced practitioners to pursue graduate studies without leaving their jobs to live on campus or to attend classes that interfere with their work schedules." Other comments about this institutions program were " . . . has found ways to provide the interaction among students and between faculty and students, that is often associated with campus living, through short-term summer sessions and regional seminars, the telephone, and an electronic network".

Closings. The closings in Category 7 were coded because they provided an insight into the level of intimacy that existed between Knowles and the recipient of the correspondence. When Knowles accepted his position at North Carolina State University in 1974 his closing was "I am looking forward to working with you and your colleagues with great pleasure." His closing for a letter to a colleague in November, 1981 was "I hope that you can restore my morale." The closing in a letter February, 1984 was "Hulda sends her love." Correspondence to a student in April, 1989 was closed using "With pride in you," and another in August, 1994 closed "With pride and appreciation." Some other closings were "Affectionately," "Lot of hugs," "Warmly," and "With tender caring." A closing that also showed Knowles wit as well as the level of intimacy was in November, 1989 which was "Give (name of person) our love and keep some for yourself,". In February, 1997 after Knowles had become ill, his closing was "Painfully yours,".

Implications for Future Research and Contributions to HRD

The database produced as a result of this effort will provide scholars in the years to come a window into the personal and professional ideals of Malcolm Knowles. As a result of this analysis, the research team gained valuable insight into certain aspects of his life that are ripe for future exploratory study. First, a picture emerges from his words of a man possessed with great wit, humor, warmth, and kindness. Further study of this personality, as witnessed through his correspondence, can provide scholars with rich biographical information. Second, Knowles demonstrated a strong commitment to the value of a mentoring relationship throughout his correspondence. He continued, up until his final days, to be a mentor to students and colleagues across the field. Future study of these mentoring relationships will provide researchers with a gauge of his impact across the field of adult learning and HRD. Additionally, his correspondence may provide insight into his use of andragogical principles in the mentoring process.

Malcolm Knowles was a man dedicated to his beliefs. By further analysis of his correspondence, scholars may find evidence of his convictions and philosophies related to adults, life and learning. Finally, a strong theme throughout his correspondence was the importance of his relationship with his wife, Hulda. Her role in his life and its subsequent impact upon his personal and professional successes should be studied further. Preliminary analysis suggests she played a larger role in his professional life than may have been noticed.

Malcolm Knowles, as one of the founding fathers of our field, is worthy of the focus of future research. By delving into his personal writings, HRD scholars will have the opportunity for a more intimate look at the man, his ideas and beliefs. The creation of this database represents the first brush strokes in painting a portrait of Malcom Knowles.

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Facilitating Learning with Graduate Students in Human Resource Development

Barbara J. Daley
University of Wisconsin – Milwaukee

The purpose of this study was to investigate the ways in which constructivist teaching strategies influence the learning processes of human resource development (HRD) graduate students in the context of higher education. Two groups of students were taught to use concept mapping as a constructivist strategy and then were followed over the course of a year to determine the impact this strategy had on their learning. Implications for teaching in higher education are drawn.

Keywords: Constructivist Learning, Concept Maps, Learning Strategies

Human resource development (HRD) graduate students often enter higher education programs relying on learning strategies that have worked well for them in the past (Merriam & Caffarella, 1999). These previous learning strategies often include rote learning, passive learning, memorization and recall of facts. Assisting HRD graduate students to broaden their learning strategies is a major factor contributing to their academic success in higher education (Gibbons, 1990; Novak, 1990; Smith, 1982) and to their ability to function in the workplace. The purpose of this study was to assist HRD graduate students to enhance their learning through the application of teaching strategies that foster a constructivist approach to learning.

Conceptual Framework

Merriam and Caffarella (1999) define five different learning orientations including: behavioral, social, humanistic, cognitive and constructivist learning. They believe that within each of these learning orientations different assumptions exist about the nature of learning and the strategies that instructors can use to facilitate learning. Since the purpose of this study was to assist HRD graduate student to broaden their learning strategies, the constructivist learning orientation provided the overall conceptual framework for this study.

Constructivist learning has evolved to include multiple approaches and perspectives. For the purpose of this study, constructivist learning is seen as a cognitive approach that locates cognition and understanding within the individual. The most salient feature of this perspective is the "notion that learners respond to their sensory experience by building or constructing in their minds, schemas or cognitive structures which constitute the meaning and understanding of their world" (Saunders, 1992, p. 136). Constructivists, writing from this cognitive approach (Ausubel, 1986; Brunner, 1990; Novak, 1998; Piaget, 1966), express the belief that individuals create knowledge by linking new information with past experiences to create a personal process for meaning-making. Within a constructivist framework, the learner progressively differentiates concepts into more and more complex understandings and also reconciles abstract understanding with concepts garnered from previous experience (Novak, 1998). New knowledge is made meaningful by the ways in which learners establish connections among knowledge learned, previous experiences, and the context in which learners find themselves. Lambert et al. (1995) identify multiple principles of constructivist learning theory, which include the following major points: (1) knowledge and beliefs are formed within the learner, (2) learners personally imbue experiences with meaning, (3) learning activities should cause learners to gain access to their experiences, knowledge and beliefs, (4) learning is a social activity that is enhanced by shared inquiry, and (5) reflection and meta-cognition are essential aspects of constructing knowledge and meaning (pp. 17-18).

Novak (1998) operationalized constructivist learning theory by creating concept maps. A concept map is a schematic device for representing a set of concept meanings embedded in a framework of propositions (Novak, 1998). Concept maps are created with the broader, more inclusive concepts at the top of the hierarchy, connecting through linking words with other concepts that can be subsumed. This tool helps facilitate understanding of conceptual relationships and the structure of knowledge. Novak (1990) found in an analysis of multiple studies using concept maps that the technique promoted novel problem solving abilities, raised mean scores on achievement of content units, decreased students' anxiety levels and increased students' positive attitudes toward the content of study.

Three important processes are employed in the creation concept maps. First, lower order concepts are subsumed under higher order concepts. This subsumption process assists learners to understand the nature and

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structure of knowledge by locating concepts in relation to each other. Second, concepts are progressively differentiated into more and more complex structures. The process of progressive differentiation is similar to the analysis process, as the learner breaks down concepts leading to finer distinctions. Third, the process of integrative reconciliation is used to create horizontal links and synthesize information from the left and right side of the map. These horizontal links represent the learner's ability to synthesize conceptual information during the process of creating unique meaning structures.

In order to study how constructivist strategies impact the learning of HRD graduate students, constructivist teaching strategies were employed in two graduate courses in an HRD/adult education graduate program.

Research Questions

In this study, HRD graduate students were taught to use concept maps. The extent to which this strategy contributed to a change in learning strategies was assessed by evaluating; (1.) the change in student concept map scores during a one-year time frame, and, (2.) HRD graduate student responses to tape-recorded interviews. The following research questions were advanced to guide this investigation.

- When HRD graduate students learn to use concept maps in one course, will that learning strategy carry over to subsequent courses in which the student enrolls?
- How does the use of concept maps as a learning strategy change the thinking of HRD graduate students?
- Can concept maps transform HRD graduate students' prior learning strategies?

Methodology

During semester one, HRD graduate students in two different courses were taught to use concept maps as an integrated part of their course work. Students developed concept maps to reflect the course readings, plan course projects, and to compare and contrast information from course discussions. In learning to use concept maps, students were taught to follow the steps outlined in Table 1.

Table 1. *Steps in Constructing a Concept Map*

1. Identify the most general concepts first and place them at the top of the map.
2. Identify the more specific concepts that relate in some way to the general concepts.
3. Tie the general and specific concepts together with linking words in some fashion that makes sense or has meaning to you.
4. Look for cross-linkages between the general and more specific concepts.
5. Discuss, share, think about and revise your map.

(Adapted from Novak & Gowin, 1984)

Twenty-one students from these courses were randomly selected and invited to participate in this study. Following IRB approval, students gave consent to have their course work reviewed and to be interviewed twice over the academic year.

A mixed-method design using both quantitative and qualitative analysis was created for this study. The first and final concept maps created by study participants in the first semester were scored according to the scoring formula created by Novak and Gowin (1984) and depicted in Table 2. Reliability was established by obtaining two independent scores on each map. Inter-rater reliability was established at .80. Data analysis included calculation of group means and comparison of these means using a dependent t-test.

At the end of semester one, interviews were conducted with participants about their use of concept mapping. During the interviews, HRD graduate students were asked the following questions: 1. What was it like to use concept maps as a learning strategy? 2. What did you learn while doing concept maps? 3. Where else have you used the maps since the completion of your course (if at all)? 4. How was doing the

Table 2. *Concept Map Scoring Formula*

1.	Relationships	(if valid)	=1 point
2.	Hierarchy	(for each level)	=5 points
3.	Cross links	(for each cross link)	=10 points
4.	Examples	(for each example)	=1 point

(Adapted from Novak & Gowin, 1984)

maps the same or different than other learning strategies you have used previously? 5. What did you like most/or like least about using concept maps? 6. What changes, if any, did you see in your thinking ability since using concept maps? 7. What was the most significant learning you remember from this course? 8. If you were going to describe concept mapping to another graduate student, what would you say? 9. How do you see using/or not using this learning strategy in the future?

Study participants were followed during semester two. Concept maps created by the HRD graduate students at the end of semester two were scored. At the end of semester two, study participants were interviewed a second time to determine if they continued to use concept maps as a learning strategy and how that strategy impacted their thinking and learning.

Interview data was analyzed using a modified constant comparative method (Glaser & Strauss, 1967; Patton, 1990). First, all interviews were coded and themes identified using the qualitative data analysis software package N*VIVO. Then, coded data were compared from the first set of interviews to the final set of interviews by developing a system of matrices for comparison and contrast (Miles & Huberman, 1994). Finally, a summary concept map was created to synthesize the themes identified in both sets of interviews.

Findings

Findings from this study indicate that using concept maps impacts HRD graduate student learning. The presentation of findings from this study will first focus on the changes in concept map scores and then explore student interview data related to learning with maps and the use or non-use of maps at a one-year follow-up.

Changes in Concept Map Scores

In this study concept maps were collected from participants at three separate points. In the first semester of the study, the first and final map created by the students were collected and scored. During the second semester, the final map that participants created, (if they did create a map in semester two), was collected and scored.

Data analysis (Table 3) demonstrates a group mean of 44.81 on the first concept map and 121.43 on the final concept map of the first semester, for a difference of 76.62. The t-value comparing the first to final map was –6.614 (p=.001). The data indicate a statistically significant difference between the first and final map scores of the first semester.

Table 3. *Changes in Concept Map Scores over First Semester*

Variable	No. of Cases	Mean	Difference
First Map of Semester 1	21	44.81	-76.62
Last Map of Semester 1	21	121.43	

P = .001 t-value = -6.614

Students were followed during the second semester of the study, to determine if they continued to use mapping as a learning strategy and if they did how the maps compared to the first semester. Data indicate that 65% of students in this study continued to use mapping into the second semester. Data indicate the mean score for the last map during semester one was 121.43 and the mean score for the last map in semester two was 120.22, for a change score of –1.21. The data indicate no significant difference between those participants mapping at the end of semester one and those mapping at the end of semester two.

Participants were also interviewed at two points during this study, at the conclusion of semester one and at the conclusion of semester two. Participants were asked during the interviews to describe their experiences with mapping as a learning strategy and to analyze how their thinking had changed or not changed through the use of mapping. Participant responses were categorized into two areas for presentation of findings: learning with maps and map use on follow-up.

Learning with Maps

Study participants indicated that to learn effectively with maps, they first had to develop the skills in map construction and to understand the mechanics of mapping. Additionally, participants reported that often their initial reaction to mapping changed and developed over the time that they used mapping.

Participants stated that part of what they enjoyed about the process of mapping was the focus on organization, analysis and understanding. Participants indicated that through the process of organizing and analyzing, they developed a more holistic picture of what they were learning. One participant stated:

> *It made you look at whatever it was you were doing in its entirety. It made you look at it as a whole. And then start breaking it down by concepts and then you would rebuild it by linking . . . You feel the knowledge building. You just feel yourself seeing things differently than before you started doing that.*

However, some participants expressed difficulties in developing maps including: finding time to complete the maps, deciding on the level of detail to include and overcoming their lack of desire to change how they learned. Participants indicated that mapping as a learning strategy was too demanding and took up too much time.

> *. . . it is just another task to do when you feel overwhelmed. It takes more time than just reading the text . . . I think it has a lot more value than what it feels like you are doing at the moment.*

Participants also expressed how difficult it was to change learning strategies that they had used in the past. Changing old habits was time-consuming and difficult for most participants in this study. One participant indicated:

> *But, I guess what I hated the most was that I had to change my thinking mode. It is before, like, well, I am just reading this information, and I am picking out what I see is in the writing or what the writer is trying to present. I guess I just didn't like the idea of changing old habits and doing things differently.*

Understanding One's Own Learning

A major finding of this study was that concept mapping helped HRD graduate students to understand their own learning processes. Additionally, they were able to explain that they developed their learning processes through the use of learning strategies such as linking, developing interrelationships, creating meaning schemes, and constructing knowledge. Participants reported that the maps helped them to understand how they think, to think in a broader fashion, to search out complicated relationships, and to organize information so that they remembered it in a much more comprehensive way. For example,

> *I learned a little bit about how I think based on how I put the concept map together. I learned a little bit about what challenges me, what comes easy to me. I tried to pick things to concept map that I didn't understand so that I would understand them afterwards.*

Another participant described how she developed understanding by moving from larger concepts to smaller concepts and back again.

> *I learned to use another part of my brain. I learned also to think globally because this is going from big ideas and main ideas to smaller ideas, subtopics, so I learned to modify how I think about information. I also learned to show more linkage of information.*

Finally, participants discussed how the maps helped them apply information to their experiences and at the same time remember that information in a new way.

> *. . . instead of it being information given to me and stored away in my head, the most significant thing is that when I can apply things to my real life experience, I have a better time understanding them, better time remembering them. So to me that is a big deal.*

Learning Strategies

As participants came to understand their own learning, they also developed an understanding of a number of learning strategies that they developed as a result of using concept maps. Participants reported that their understanding of how to link concepts, develop interrelationships, create meaning schemes, and construct a knowledge base developed through the use of mapping.

Linking. Participants in this study were asked to describe their most significant lesson learned from the course in which they were enrolled during the first semester. A large percentage of the participants expressed the opinion that learning to link concepts was a new learning strategy for them and a major discovery in their own learning. The following participant expressed the value of learning to link concepts this way:

> *What I discovered in my own learning was that indeed there were connections between ideas and concepts that I hadn't picked up on just in reading the material. But it was in the diagramming of the concept map and I usually did it in two stages. My first stage was I threw enough stuff down on paper as I could [sic]. My second stage, I let it sort of sit and simmer like a pot on the back burner for awhile. Then I would come back and make some aha's, oh I see some relationships here. And that helped to open up the interconnectedness of what I had been looking at and didn't initially see.*

Another participant expressed a common theme evident in many HRD graduate learners' experiences in this study. Participants indicated that they just had not thought about the relationships between concepts previously until confronted with a learning strategy that asked them to make those connections.

> *The linking. I never gave it thought before the relationships between levels in the hierarchy and between different concepts within the map. That would probably change my approach to a lot of things now.*

Interrelationships. Participants in this study also described a step beyond linking. They indicated that as a result of making links between concepts, they began to understand and search out interrelationships between concepts that created new meaning for them. As one participant explained:

> *As I did the concept maps, I was particularly sensitive to find what the interconnections were. I did our case studies and I went through the readings; whatever we had to concept map, I was more aware of the connections, what are the relationships, because I knew eventually I had to produce that in the map.*

Another participant described how after learning to make links, the process of developing interconnections helped him critique his own thinking by highlighting false connections he had made previously. As a result, he felt that finding the connections was a way of double-checking his understanding of new material.

> *After I did a couple of maps I realized that these were the things that I was trying to do mentally. Sometimes I would see the mistakes or let's say just mis-connections. Like no, this really doesn't connect to this. This really should connect over here. You could almost, like, check your math. It is like doing math the long way as opposed to taking some shortcuts. Every once in awhile you made a mistake and then you had to go back. It was kind of like long division.*

Creating Meaning Schemes. A number of participants also indicated that subsequent to linking and searching out interconnections, the mapping exercise fostered the learning process or strategy of creating meaning schemes. Most participants described these schemes as a way to organize and structure information. Additionally, participants indicated that in the process of creating schemes of information their ability to recall the information was improved.

> *Well, doing the concept map forms the schemes for learning. It forced me where the author didn't put a framework, to put one. So I believe that although it takes longer to read and do a concept map in order to retain what you are doing or to develop an idea that way, that I definitely knew after doing a couple that the retention was going to be greater because the scheme was etched in your mind then.*

Knowledge Construction. Finally, participants indicated that through the process of developing a concept map, they learned that linking, developing interrelationships and creating mental schemes all helped them develop their ability to construct a knowledge base for themselves. One participant expressed the way she began to understand the process of creating a concept map as similar to creating a mosaic. She stated:

> *I think that helped with the whole process because with a mosaic you have a bunch of little pieces and you are kind of figuring out what is the best way to array them, how many little pieces you have, and what comes after what. That concept plus the learning fell in with my understanding or belief of how adults learn. I guess it would be kind of a constructivist approach as we build on what we already know, we add too, we might reshape what we already have in our brains, based on what new stuff comes in. It may be reshaped or you may just add to your database. I felt like the concept mapping process really helped with that.*

Another participant describes a similar connection between developing concept maps and constructing knowledge. She stated:

I really believe in concept mapping because I believe in constructing knowledge. Dialog, discovery, constructing knowledge, all that stuff. It really does fit in. Maybe that is why I do like it because it does give you a chance to kind of sort stuff out and construct knowledge.

Changes in Thinking

At the conclusion of the first semester of this study, participants were asked if their thinking changed as a result of the use of concept maps and, if so, how. Participants described how this strategy was different than other learning strategies and that their thinking did change. Participants expressed how they analyzed concepts in more depth and they felt they had the ability to make connections across multiple bodies of knowledge. For example, one participant stated:

It is different because any other strategy, taking notes, putting together a formal outline, one thing after another. Whereas, the concept map gets you to think outside of the box. It gets you to see how things relate rather than how one thing is broken down. So it was a different way of approaching something, taking a different perspective on learning, I thought, which was refreshing for me.

Finally, one participant indicated that the mapping process helped her to think better and also helped her to recognize that she really developed an understanding of what she learned.

I don't know if this makes sense, but concept mapping allowed me to think better. It really allows you to understand what you are reading and as you are doing it, you are putting it together, and all of a sudden when you are done and you think to yourself when you look at sort of the arrows that are going back and forth and the connections that you have made, and you sort of look at yourself and you think, wow, I guess I really get that. I get it thoroughly as opposed to something you just read and five minutes later you asked me what I just read and I am not able to answer the first question.

Follow-Up After One Year

One of the major research questions this study addressed was do HRD graduate students continue to use concept mapping as a learning strategy even when they are in courses that do not require them to do so. In this study, 65% of HRD graduate learners reported that they did continue to use this strategy. Those participants who reported that they continued to use mapping explained that they did so for a number of reasons. They seemed to use maps to understand course material in subsequent graduate courses. They also relied on the maps as a way to understand particularly difficulty material. Many participants reported that when they felt "in trouble" in a course or that they "did not get it," they would try mapping out the material as a way to develop their understanding. Additionally, learners tended to use maps to frame projects for subsequent courses or work-related projects. One participant described how he had a big project to do at work and as a way to help his team understand the scope of the project, he mapped it out and shared the map with them. Another student described how she used a concept map in a subsequent class to demonstrate decision making.

The HRD graduate students who did not use concept maps in the subsequent semester (35%), reported that they chose not to because they were not required, they did not have time or they did not have the software they needed to develop the maps. However, the biggest barrier to creating maps for this group was time. Over and over again, these learners complained that the process took more time than they felt they could invest in their course work.

Interestingly, in this study both learners who used concept maps in subsequent semesters and those who did not still reported changes in their thinking at one-year follow up. For example, students who used the mapping tended to report that the maps increased their focus, understanding of relationships, and thinking processes. The following quote is from a learner who did use the maps in the follow up semester:

I am more conscious, especially in the class I just had, I was conscious of how do these different concepts interrelate. What are the connections that I am making in my mind? That is why I went to the concept map. Because my mind was doing stuff, but I wanted to get it down on paper so I could look at it.

On the other hand, the learners who chose not to use concept maps in subsequent semesters still reported changes in their thinking. These learners reported being able to identify interconnections, organize information and develop mental schemes for their reading. The following quote is from a learner who had not used mapping in the subsequent semester:

Although I haven't used them, I think in the way I organize my textbook and in how I write some of my notes, that it is actually a variance of a map. I never used those little stickies before. I highlight them in different colors now. What I will try to do is try to group them according to color, so that when go back I

can tell that this one kind of goes with this one which is yellow. This one is hot pink and I have found that it helps to organize in that way.

Discussion

Results of this study indicate that HRD graduate students learned to develop concept maps and, through the process of using this constructivist learning strategy they developed their thinking abilities and grew to understand their own learning processes. Also, the quality of the maps constructed at the end of the first and second semesters was virtually the same. This was somewhat surprising as one would anticipate that students' mapping skills could deteriorate if they were not required to construct maps. Rather, findings indicate that the mapping skills remained constant throughout this study. This finding is encouraging as it indicates that mapping potentially has a long-term impact on HRD students' learning strategies. As such, more research is needed on when, how and for how long these changes in thinking are evident.

A number of issues surfaced in this study. First, it was surprising that many HRD students participating in this study began with so little understanding of their own learning processes. Students often indicated that they "never thought about" their own learning and they just "took for granted that reading and studying" would foster an understanding of course material. Understanding their learning was often exciting and energizing as students felt they had mastered a skill they could continue to use in multiple settings. Second, it was evident, however, that some students were resistant to changing their learning processes, even when they were unsure of the nature of those processes. It took a great deal of work for many students who participated in this study to find the willingness to try this learning strategy and to learn how to use concept maps. This again points out the depth to which learning strategies are engrained. Finally, it was interesting to note that once study participants did understand their own learning, they continued to move forward in developing their thinking abilities even if they did not use the concept map explicitly. Again, this finding is encouraging, as it demonstrates the long-term impact that mapping may have with HRD students.

On the other hand, students did identify time as the major barrier to creating concept maps. Creating concept maps fosters a higher level of understanding of course material - but it takes more time. For HRD students' time is a carefully managed resource. One way to overcome the lack of time is to encourage students to use technology to create their concept maps. The technology streamlines the logistics of creating the maps and thus, can decrease the time required and maintain the gains in learning and thinking abilities.

Implications for Graduate Education in HRD

This study has implications for graduate education in HRD. As Watkins (2000) indicates, "the aims of HRD are to bring about learning and change in an organizational context" (p. 54). It is this researcher's belief that for HRD graduate students to develop into HRD professionals who foster learning and change, the first step is for HRD graduate students to understand their own learning processes. Once students in this study were able to learn in this fashion and explain their own learning, they were much better prepared to function as HRD professionals promoting learning and change. A number of students shared examples and cases where they used mapping in their organizations to analyze performance projects, develop strategic plans, teach leadership, support decision-making and brainstorm new ideas. This use of concept mapping in the workplace seems to indicate the wider application and implications that this learning strategy has for HRD. The major implication here, for faculty in HRD programs, is that students often do not understand their own learning processes and need practice with learning strategies that will help them develop their learning and thinking abilities. Once students develop more complex learning strategies, they are then better prepared to think critically and analytically about specific content they are learning.

The biggest challenge for faculty in HRD programs is changing teaching approaches to incorporate research on student learning. Using concept maps necessitates that faculty have a good understanding of constructivist learning and the ways in which maps represent students' thinking. To use mapping, faculty need to be willing to foster an approach to learning as meaning construction. This means that the focus of courses shifts from teaching and presenting information to learning and creating meaning. The role of the faculty member shifts from content expert to facilitator of learning. Often this is a demanding change that requires a new way of thinking about teaching and learning.

This study indicates that concept maps can effectively promote learning of HRD graduate students and thus, can be added to the teaching strategies of faculty in HRD. The maps support both constructivist teaching and learning approaches and seem to have wider applicability to the work world as well.

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Determinants of Supply of Technical Training Opportunities for Human Capital Development in Kenya

Moses Waithanji Ngware
Egerton University, Kenya

Fredrick Muyia Nafukho
University of Arkansas

In slow growing economies, an increased supply of human capital acts as an impetus for socio-economic development. Graduates of technical skills in Kenya act as job creators as opposed to school leavers who are inclined to job seeking. In this paper, the authors develop a supply function model that explains the factors influencing the supply of training opportunities in Technical Education Programs in Kenya.

Keywords: Technical Training, Supply of Training, Human Capital

Resources used on education and training are investments in socio-economic development of a nation. In developing countries, studies have shown that rates of return to expenditures on education and training are very high (Psacharopoulos, 1995). In Kenya, studies show that farmers and informal sector workers with primary education are one-third more productive than their counterparts without this basic education (Ndegwa, 1991; Thias & Carnoy, 1972). Investment in human capital is a critical consideration to the success of an industrialization process of any nation. It assures the supply of well-trained managers and skilled technicians at both shop floor and supervisory levels. This calls for a collaborative effort between the training institutes and employers in order to bridge the gap between supply of training places, graduate outputs and demand for technical skills. In Kenya, it is estimated that 59 per cent of the population is below 20 years of age (Republic of Kenya, 1996, 1997). The government of Kenya through the sessional paper No. 2 of 1996 observed that, there existed a mismatch between demand and supply in the labor market. Thus, majority of the youth lack vocational and technical skills that are required in the labor market. While the training institutions are offering courses that may not be required by employers.

Problem Statement and Purpose

To remove the mismatch between demand for and supply of technical training opportunities in Kenya requires economic analysis. Training potential and opportunities for school leavers and workers is an area that needs to be explored using economic principles. The ministry of education does not have data on the number of places available for technical training and the factors determining demand for and supply of technical training opportunities. This reduces planning for development of human capital to guess work. Thus, in the absence of empirical data relating to factors influencing the supply of technical training opportunities, one is not able to determine whether new institutions should be build or the existing ones, should be expanded.

The main purpose of this study was develop a supply function model that explains the factors determining the supply of training opportunities in Institutes of Technology (IT) in Kenya. The study sought to answer one major question: What factors affect the supply of training places in Institutes of Technology studied?

Study Hypotheses

It was hypothesized that:

1. There existed a positive and significant relationship between the diversity of the technical courses offered by the departments and the supply of training opportunities.
2. There existed a positive and significant relationship between the cost of the training programs and the supply of training opportunities
3. There existed a positive and significant relationship between departmental capacity and the supply of training opportunities.

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Theoretical Framework

The theory of human capital postulates that individuals are motivated to spend on themselves in diverse ways by purchasing education, not for its own sake, but for the sake of future pecuniary and non- pecuniary returns. That both direct and indirect cost is incurred when individuals and governments spend on education (Shultz 1961, 1962). From the theory of human capital, expenditures made by individuals and governments on education and training are investments that will provide returns in the future. Becker (1993) shows that investing in education and training increases individuals' lifetime earnings. Thus, education and training are processes of human capital formation. In fact, Shultz (1962) and Mincer (1962) note that all activities aimed at improving quality of human life such as spending on health, job search, and migration are part of human capital.

Training, which is the main focus of this paper, is a form of human capital. As in education, training influences the variation in wages and earnings. Mincer (1962, p. 50) observes: " the training process is usually the end of a more general and preparatory stage, and the beginning of a more specialized and often prolonged process of acquisition of occupational skill, after entry into the labor force." The cost of training incurred by the training institutions and the trainees including expenditures on foregone earnings are considered investments (Aliaga, 2001).

Factors Influencing Supply of Training

The literature show that the main factors influencing supply of training can be derived from the reasons why training is provided. From the economic theory of the firm, inputs are utilized to obtain output. Thus, training institutions incur costs such as building of learning facilities, paying the trainers, time and purchase of equipment. All these include the inputs. The output includes, the graduates. From the Input-Output model, training institutions, as firms must optimally combine inputs to obtain the desired output.

Becker (1993) identified two types of training, general training and specific training. General training is the type of training that is useful in many firms besides those providing it. The knowledge and skills learned can be used in the firm providing or sponsoring the training as well as in others. Thus, knowledge and skills are transferable from organization to organization (Aliaga, 2001; Nafukho & Kang'ethe in the Press). Firms that incur the direct and indirect cost of general training obtain returns from the investment but also take the risk of other firms obtaining the returns when the trained employees change jobs. Employees who take general training in most cases pay for their own cost of training. Hence, cost of training is an important factor that may determine the supply of training. General training provides workers with increased negotiation capability within the existing labor market. Most firms are unwilling to directly sponsor general type of training since it is easy to outsource such services.

Unlike general training, specific training has been defined as training " that has no effect on the productivity of trainees that would be useful in other firms" (Becker, 1993, p. 40). The skills and knowledge learned will only be useful to the organization sponsoring the training. A good example of specific training in Kenya is the kind of training provided by banks. When banks train their own employees in Kenya, they focus on specific training with the objective of obtaining increased marginal productivity from the employees since the skills and knowledge learned are only applicable to the banks paying for training. Flamholtz & Lacey (1981) observe that the purpose of specific training is to increase the employee's marginal productivity. That is both the firm and the employee will benefit from increased marginal productivity since the overall performance improves. The employee will benefit especially in the private sector where payment is pecked on good performance. This is in line with the theory of human capital since the trained employee receives additional earnings as a result of investment in training.

Both general and specific types of training influence the supply of training in Institutes of Technology in Kenya. Employers sponsor their employees by paying for direct and indirect cost of specific training. In the case of general training, many high school students meet the direct cost of their training.

Departmental Capacity, Program Diversity and Supply of Training

World Bank (1993) study concluded that meeting academic entry requirements and private costs were the major determinants of access to technical training institutions. According to this study, major determinants of access had to do with admission policies based on departmental and institutional capacity. The study further established that despite girls scoring high grades in pre-training examinations, they were under-represented. Under-representation of girls in technical and vocational training institutions was also highlighted (Burge, 1990). These studies found out that females enrolled in business education related courses and teacher-training programs while males dominated agriculture, auto mechanics, building trades and technology education. Gender stereotyping and household duties were established to be the major barriers to female participation in courses perceived as male domain. Access by location was found to favor urban dwellers. Urban schools had high average entrance grades (80.3%) compared to rural schools (27.6%). If admission criteria were based on minimum academic entry requirements, then students from rural areas will be under-represented in technical and vocational training institutions. This situation was

reinforced by the fact that most technical and vocational training institutions in Kenya were concentrated in urban areas. The issue of under-representation of girls in vocational and technical education in Kenya is also expounded by Nafukho (1994).

The UNESCO Conference on Education For All held in Kenya, found the participation rates in technical institutions to be low (UNESCO, 1992). The conference also heard that out of School Education and Training Programs were male dominated. Such a scenario was partly explained by ignorance on the part of school leavers; inadequate facilities; academic qualification syndrome; and cultural inhibitions and lack of career guidance (UNESCO, 1992). The literature points to the need for training skills for all members of our society regardless of their gender. For this to happen, the Kenya Government and the private sector should provide training opportunities in terms of more access to training facilities. Such facilities should be supplied equitably by gender, region and socio-economic status if regional inequalities existing in Kenya have to be addressed. While the costs of training, departmental capacity and program diversity influence the supply of training as shown by the literature review, no study shows the extent of the influence in Kenya. This study therefore aimed at filling this gap.

Methodology

An *ex-post facto* design was employed in the study. The research design was found relevant to the study since the researchers used existing data in the technical institutions. Thus, an after-the-fact analysis was conducted. This design was found appropriate for the study as it enabled the researchers to establish subsequent relationships between the dependent and independent variables. The 17 Institutes of Technology in Kenya comprised the target population of the study. A sample size of seven (7) institutions was selected. The sample size was arrived at after considering institutional size (enrolment) as an indicator of how the population was distributed. Other considerations made in order to achieve sample design efficiency included cost of study, heterogeneity of the sample frame, number of trait to be measured and size of the acceptable sampling error set at 5%. Stratified sampling was used in the first stage of sampling ITs. Institutions were stratified into three strata based on institutional size deviation from the population mean (M_p). Simple random sampling was used to select ITs from the strata. Sample allocation from the strata was computed from Neyman's formula for optimal sample allocation (Rossi, Wright, & Anderson, 1983). The institutions selected and their enrolment as per the time of data collection included Mathenge (167), Kaimosi (205), Kimathi (401), Ramogi Institute of Advanced Technology- RIAT (541), Kiambu (558), Murang'a (693) and Rift Valley Institute of Science and Technology-RVIST (1204).

Description of the Instrument for Data Collection

In order to collect data, a questionnaire was developed and administered to 37 Heads of Departments of the Institutes studied. All the departmental Heads were given enough time to respond to the questionnaire. The instrument sought information on the independent variables such as number of instructors, number of students enrolled in the institute by department and program, fees required per year, mean score in national examinations, composition of the students, course and programs offered. Also sought was the information on the dependent variable number of student places in each department.

Validity and Reliability of the Instrument

Prior to embarking on actual data collection, the instrument was presented to experts in the field of vocational and technical education in the Faculty of Education at Egerton and Moi Universities, Kenya for refining. The comments provided were incorporated. In addition, a pilot study was conducted. Four Departments in similar institutes completed the questionnaire. The researchers used the feedback from the pilot to further refine the instrument. Care was taken to ensure that the four Department Heads did not participate in the final study.

Besides the 37 Heads of departments, 7 principals, 7 registrars, and 7 finance officers were interviewed. Interview schedules on the factors influencing supply of training were employed in data collection. Data were collected from both primary and secondary sources. Cronbach's alpha (α) was used to estimate the reliability of the questionnaire items (Rossi *et al.*, 1983). The instrument had a reliability coefficient of 0.9924. This indicated that the instrument was consistent in measuring the variables studied.

Findings

The hypothesis under investigation postulated that availability of technical training places was not related to shortage of trainers and inputs required for training. Explanatory models for the relationship between variables in this hypothesis have been presented. Availability of Technical education training opportunity (SsTep) was the

dependent variable (Y), measured by the number of first-year trainees that qualified and were admitted to undertake a three-year TEP course. Each department in an institution provided one single observation (which was independent of any other observation). Table 1 defines explanatory variables used in the model.

Table1. *Explanatory Variables Used in Modeling Supply of Technical Training Opportunities*

Variable	Definition
PRT (X_1)	Pupil-teacher ratio
NuCos (X_2)	Number of three-year programs (course) offered in a department
RdpCap (X_3)	Real departmental capacity. This was measured by the number of students' places in each department
PpRDpCap (X_4)	Proportion of real departmental capacity to total enrolment
AdpCap (X_5)	Actual number of trainees enrolled in each department for a three-year course
SchFe (X_6)	Training fees per year in each institution
GQLY (X_7)	Quality of graduates. A mean score based on national examination performance for each department measured this variable
GQTTY (X_8)	Quantity of graduates from a department
PpGQTTY (X_9)	The proportion of graduates to the total number of candidates in a department

The correlation coefficients (r) between the dependent variable Y and the independent variables X_i showed that NuCos (X_2), RdpCap (X_3), AdpCap (X_5), SchFe (X_6) and GQTTY (X_8) had positive and significant relationships with the dependent variable (Y) at 0.01 significance level. Variable PpRDpCap (X_4) also had a positive and significant relationship with the independent variable at 0.05 significance level. Variables PRT (X_1), GQLY (X_7) and PpGQTTY (X_9) had a weak and insignificant relationship with the independent variable.

A multiple linear model was estimated to explain the relationship between the dependent variable (Y) and the independent variables. In order to come up with the best model, it was found necessary to address the assumptions that go with linear modeling. Rossi *et al.*, (1983) argued that correlations among pairs of independent variables that exceed plus or minus 0.8 can be used to detect multicollinearity. However this is not always a good strategy to deal with multicollinearity as it could introduce omitted variable bias. To deal with the problem, the study relied on SPSS, which could check internally and exclude the independent variables that were highly related to others from the regression analyses. To ascertain that a linear relationship existed between the dependent variable and explanatory variables, scatter diagrams were plotted. Explanatory variables whose points did not seem to cluster around a straight line even after transformations were done, were dropped from the model. Scatter plots of residuals versus independent variables and residuals versus the predicted values showed no pattern for the variable of the final model, thus confirming homoscedasticity. Using a probability of F-to-enter less or equal to 0.05 and F-to-remove greater or equal to 0.1, regression analysis methods estimated three models as shown in Table 2. Only three variables met the specified criteria of F-to-enter and F-to-remove.

Table 2. *Stepwise Regression Analysis for Determinants of Supply for a Training Opportunity in Technical Education Programs*

Model	Coef (ß)	Std	t-ratio	Sig *
Constant	1.100	2.098	0.524	0.604
X_5	0.366	0.018	20.312	0.000
	Df = (1, 31)	F = 412.585		
	R^2 = 0.930	Prob. (>F) = 0.00		
	Adj. R^2 = 0.928			
Constant	-0.327	2.080	-0.157	0.876
X_5	0.315	0.028	11.064	0.000
X_2	2.702	1.220	2.215	0.034
	Df = (2, 30)	F = 234.748		
	R^2 = 0.940	Prob. (>F) = 0.00		
	Adj. R^2 = 0.936			
Constant	-13.832	6.735	-2.054	0.049
X_5	0.299	0.028	10.644	0.000
X_2	2.742	1.156	2.372	0.025
X_6	0.00054	0.000	2.097	0.045
	Df = (3, 29)	F = 175.685		
	R^2 = 0.948	Prob. (>F) = 0.00		
	Adj. R^2 = 0.942			

* Significant for a two-tailed t-test at 5% significance level

1. SsTep = 1.100 + 0.366 ADpCap ..... (Eq. 1)
   (0.524) (20.312)
2. SsTep = -0.327 + 0.315 ADpCap + 2.702 NuCos ..... (Eq. 2)
(-0.157) (11.064) (2.215)
3. SsTep = -13.832 + 0.299 ADpCap + 2.742 NuCos + 0.00054 SchFe
(-2.054) (10.644) (2.372) (2.097) (Eq. 3)

Equations 1, 2 and 3 explained 92.8%, 93.6% and 94.2% respectively of the total variance observed in the supply of training opportunities. Equation 3 (adj R^2 = 94.2%) offers the best model that could be adopted to explain the variation. The F-values from ANOVA undertaken for each equation are significant at 0.01 level. This indicates that regression coefficients are different from zero. From Equation 3, the number of applicants who qualify and could be admitted to undertake a three-year course in a department can be predicted. This equation shows that the estimated supply of training opportunities in TEP departments at the beginning of an academic year is equal to 0.299 times the actual departmental capacity, plus 2.742 times the number of programs offered by the department, plus 0.00054 times school fees, minus 13.832. This model is important in planning the supply and allocation of training resources within an institution. Equation 3 has a high predictive value (94.2%) and therefore could forecast with increased accuracy. The remaining 5.8% of total variance unexplained by Equation 3 could be due to measurement error or variables not included in the model. If Equation 3 was applied to the seven institutions in the study, supply of training places in those institutions would be 1,007 in one intake. Table 3 shows the supply of TEP in the seven institutions as estimated by model 3.

Table 3. *Predicted Supply of TEP Training Places*

Institution	AdpCap (X_5)	Nucos (X_2)	SchFe (X_6)	No. of SsTep Technical departments	
1. Mathenge	49	1	21,860	3	88
2. Kaimosi	93	2	20,428	1	32
3. Kimathi	37.33	1.25	24,000	3	42
4. RIAT	65	1.83	26,400	6	150
5. Kiambu	173	3.67	35,203	3	201
6. Murang'a	96.5	2.17	30,957	6	227
7. RVIST	176.5	4.25	29,660	4	267
Total					1007

Notes: Entries in columns 2, 3, and 4 are averages for each institution.

Entries in column 5 are the number of technical departments in an institution that were used to multiply the results of equation 3 (and thus remove the effect of averaging) in order to get SsTep in each institution.

Conclusion

Number of courses offered by an institution, amount of fees paid and departmental capacity were found to explain the supply of training places. Increasing the number of courses offered by an institution increased students' opportunity of being admitted to such an institution and hence the supply of training places went up. Also, a high admission as a result of increased supply does not necessarily result to decreased school fees, as would be the case if economies of large scale were to be realized. The positive regression coefficient for school fees indicates the contrary. This is likely to happen because institutions operate inefficiently and have failed to utilize economies of large scale. Institutions with high enrolments are the most likely to charge high fees. In case of departmental capacity, a positive regression coefficient was observed. This means that expanding the holding capacity of departments will allow the institutions to admit more students. Equation 3 can be used to forecast effective supply of training places in a department in future. Holding other things constant, by the year 2010, a department may predict the number of new trainees who could be admitted given a capacity of 100, three courses and school fees of Kshs 25,000 per annum. This can be shown as follows: SsTep = −13.832 + (0.299 x 100) + (2.742 x 3) + (0.00054 x 25,000)=36.894. Such a department would prepare for 37 first-year students, other things being the same.

Implications to Human Resource Development Field

The economic theory of demand and supply has been used in this study to develop a supply function model of factors determining supply of training opportunities by Institutes of Technical Training. The capacity of such institutions to offer training opportunities is a major issue in the development of human capital in Kenya. Since human capital is a key factor in wealth creation, it is imperative that the supply of training places be a major consideration wherever the ministries of Education and Labor draw their short, medium and long-term plans. Technical Training Institutions need to expand their physical resources both quantitatively and qualitatively to develop human capital. The economic theories of demand and supply and the theory of the firm used in this study have great significance to HRD descipline. While supply of training of opportunities may not be a major issue in developed economies such as that of UK, and US, it is an issue in Kenya. HRD Researchers interested in studying

provision of training and human capital development in Africa should find the results of this study useful. Specifically, the model developed in this study should be of great interest to training institutions and human resource experts who are actively engaged in training in developing countries.

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Dancing with the Cherokee: Reflections on Learning from the 2001 AHRD Globalization Pre-Conference

Theresa J. Kraemer
University of South Florida

Darren C. Short
Perspectives, UK

This paper reports the design of, and participants' accounts from, the visit to the Cherokee Nation undertaken in the 2001 AHRD Globalization Pre-conference. The impact of globalization on national and sub-national cultures can be great. With major corporations as significant players in globalization, HRD professionals have key supporting roles and the potential to influence the globalization process. The 2001 pre-conference acted as a case study in exploring the impact, the steps peoples can take to preserve their identity, and the implications for HRD.

Keywords: Globalization, Cherokee, HRD Practitioners

> *Globalization...is the inexorable integration of markets, nation-states and technologies to a degree never witnessed before--in a way that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before, and in a way that is enabling the world to reach into individuals, corporations and nation-states farther, faster, deeper, cheaper than ever before* (Friedman, 2000, p. 9).

This paper reports the content from the *2001 Academy of HRD (AHRD) Globalization Pre-conference*, and the reflections of those who participated. It was the fourth annual pre-conference on the topic, the previous three dealing with theories and research on globalization and implications for HRD. The 2001 pre-conference dealt instead with exploring the 'experience' of globalization, with the intention of generating more reflective practice in HRD practitioners and new strands of HRD research.

With the AHRD conference based in Tulsa in 2001, pre-conference attendees had an ideal opportunity to visit the Cherokee Nation in nearby Tahlequah. The broad purpose of the visit was to engage in dialogue with Cherokee leaders and community members on how they maintain their cultural identity in the face of pressures for cultural change, and in particular to examine the role of education in that maintenance process. The goals were to:

- Increase participants' understanding of globalization, the impact on HRD, and the role of HRD professionals.
- Encourage new ways of looking at, and thinking about, globalization.
- Help positioning the pre-conference as a significant contributor to the dialogue on the relationship between HRD and globalization.
- Support networking and facilitate a network of HRD scholars committed to the exploration and enhancing of globalization research.
- Provide an innovative, participative, and fun experience.

Purpose and Structure

Because of the unique design of the pre-conference activities, organizers were encouraged to record and report both the design and accounts of the experience. This paper gives that report. In presenting the paper, we are not claiming to be building new theories, but to be sharing our experience in the hope that it encourages others to reflect on the experiencing of globalization and how innovative learning designs can be incorporated into their study of globalization and HRD more generally.

The paper is structured to first describe a generalized background of the Cherokee as global players as well as globalization, present the methods of data collection, followed by a discussion of the results, and then the implications for HRD. The final section describes the need for further research.

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Background on Globalization

In 2000, the United Nations reported that the phenomenon of globalization had attracted more significant global attention than perhaps any other issue in recent memory (United Nations, 2000). Although, it has been a part of our history for millennia, the rate and scope of globalization have increased dramatically over the last fifty years to the point where, for the first time in our history, almost everyone now is feeling the pressures, constraints and opportunities to adapt to the globalization system (Friedman, 2000).

Globalization is a complex and controversial process of worldwide changes in economy, politics, and culture. From a world systems perspective, globalization may be seen as the dominant international system that has replaced the Cold War system (Friedman, 2000). According to the UNRISD (1995), transformations toward globalization took different forms in different places, but six consistent trends shaped institutional change: the spread of liberal democracy; the dominance of market forces associated with capitalism; the integration of the global economy; the transformation of production systems and labor markets; the speed of technological change; and the media revolution and consumerism.

There are many published accounts of the impact of globalization on culture. Short and Callahan (2001) described these in more detail, but to summarize a few here:

- How the effects of globalization in the Philippines threatened traditional manufacturing and work roles (Heinrich Boell Foundation, 2001).
- The reaction to American companies setting up in China – for example, when Starbucks opened a store in the Forbidden City, how Kentucky Fried Chicken could be "booted out" of another Imperial site when its lease expires in 2002, and how McDonald's had removed its golden arches from outlets by Tiananmen Square (CNN, "Starbucks Brews Storm," 2000).
- In 1998, the minister of culture in Canada held an international conference with cultural ministers from Europe, Latin America, and Africa in an attempt to find ways to protect cultural diversity from the intrusion of, primarily, American culture (DePalma, 1998). It was claimed that Americanization is largely linked to the entertainment industry that brings us "Mickey Mouse and Rambo." The conference led to the establishment of a working group to place more emphasis on cultural issues in global economic and political negotiations.
- The web site of the charity *Mary Knoll Catholic Mission* contains short personal descriptions of the human face of globalization as described by 16 residents of countries south of the United States (Mary Knoll Catholic Mission, 2001). Included among them is an account of how the Venezuelan culture is threatened by US baseball hats, Michael Jordan shoes, cable TV, and English-language rap music.
- The Dutch Development Assistance and Research Council (RAWOO) recently ran workshops in Bolivia and Tanzania to gather first-hand accounts of globalization. During the Bolivian workshop, the impact on culture was reflected in the comment that 'the knowledge maps that helped us fix horizons and select possible routes have been destroyed.' (RAWOO, 2001).

Major corporations are central to the globalization story; hence, the clear links between globalization and HRD. As organizations look to go global or remain global, they are likely to look to HRD professionals for advice and support. Hart (1999), when considering corporations as agents of global sustainability, argued that organizations in the global era needed new socio-technical systems, new strategic models, and the development of leaders who could lead the transformation to sustainability – all ethical roles for HRD professionals. Other requests may include: We need help to ...

- Develop managers who can think, lead, and act from a global perspective, with global skills and a global mindset (Kim, 1999)
- Understand other cultures and increase employees' cultural competence
- Design more responsive organizational structures (Monge & Fulk, 1999)
- Push decision making authority to lower levels, employ cross-functional teams, and encourage organizational learning (Branscomb, et al., 1999)
- Increase and improve external communication with international suppliers, subsidiaries, alliance partners, and customers (Parker, 1996)
- Prepare our employees for periods of expatriation.
- Increase employee competence in strategic communication knowledge (conflict avoidance, showing respect, and using correct language), tactical communication skills (giving instructions/orders, networking, and writing, listening, and persuading), and behavioral traits/cognitive abilities such as empathy, cognition, and complexity (Sriussadaporn-Charoenngam & Jablin, 1999).

There is therefore a strategic role for HRD practitioners in supporting organizations as they increase their global position and role. At the same time, Short and Callahan (2001) argued the importance of HRD practitioners understanding the ethical issues in globalization, part of which must include understanding the impact of globalization on cultures and national identity. The *2001 AHRD Globalization Pre-conference* was designed, in part, to raise awareness of that impact.

Pre-conference Design

All the conference participants, and so all those whose post-event reflections have been included in this paper, were members of AHRD. All attended the full pre-conference; and all were practitioners, educators, researchers, or students engaged in HRD.

The pre-conference was designed to be an active learning / experiential program held over two days. The first day, until 4 pm, was held at a hotel in Tulsa, and the participants were bused to Cherokee Tribal lands in Tahlequah (pronounced: tell-lah-quah), about 60 miles away.

On the first day, participants:

- Explored the issue of globalization and how it affects organizations and national cultures in developed and developing nations.
- Viewed a 45-minute videotape that provided historical background on the Cherokee and created a common point of reference for all participants prior to visiting Tahlequah.
- On arriving in Tahlequah, participants experienced a traditional Cherokee dinner prepared and served by local Native American people. They were then addressed by the Chief of the Cherokee Nation who gave a speech on the importance of language preservation and various Cherokee actions taken to preserve and promote their language as well as the Cherokee nation's desire to become participants in the global marketplace.
- Participants then completed a 90-minute active learning session involving observation of traditional Native American drum group and participation in traditional Native American dances. Explanations as well as the importance of each dance were provided by the Drum leader and, per Cherokee tradition, global participants were able to exchange token gifts of appreciation and friendship.

On the second day, informants participated in a 90-minute case-based dialogue session with representatives of the Cherokee National Enterprises, during which they discussed how the Cherokee Nation has supported various Cherokee businesses and enterprises. That was followed by a 30-minute presentation by the Northeastern State University's President on the unique relationship and mechanisms by which the University works with the Cherokee Nation. Local experts provided a 90-minute tour and presentation on the history of the Cherokee Nation and the original Cherokee school, Seminary Hall. Following the tour, specialists at the Center for Tribal Studies presented 30-minute program for promoting the local tribal culture and language.

Data Collection and Analysis

Data were gathered through a survey, observation, and document analysis:

Survey. A semi-structured open-ended ethnographic survey was used to collect reactions from pre-conference participants describing the Cherokee culture, the learning experience, and participant meanings of effective HRD with respect to globalization. The survey instruments were distributed approximately one month after the 2-day pre-conference session, with data gathered between April 1, 2001, and June 30, 2001. Two follow-up reminders were sent – one at the start of each month. Whilst 21 participants attended the pre-conference, only 12 completed the survey.

Observation. The researcher maintained handwritten field notes (documents generated from observations) of the informant's nonverbal behaviors in the survey setting for each survey. The field notes were transferred into the HyperResearch computer program for storage and to categorize the data. A detailed record was maintained of the environment, including the participant's comfort level, choice of environments, interruptions during the course, and institutional atmosphere. A complete record of informant's nonverbal behaviors, expressions, mannerisms, actions, reactions, and interactions was maintained throughout the study. This technique allowed the researcher to understand the meanings constructed during the surveys.

Document Analysis. Professional documents and artifacts reviewed included: course notes, handouts, articles, and other materials. Written items in the environment, including all memos, announcements, meetings, and postings

of events, were reviewed and analyzed for cultural references as well. All documents and materials were reviewed in-depth for HRD and culture-related content as well as cross-cultural references. The references were categorized and compared with informants' statements and observed non-behaviors.

Data Analysis

Inductive data analysis was utilized for this study and was an ongoing process. Once surveys were transcribed, data were tagged and coded using HyperResearch. For each case record, non-alphanumerical symbols were used to tag words, phrases, and sentences. Using a constant-comparative approach, each subsequent survey was compared with previous data for similarities, differences, and consistencies of meaning across the data. Data were analyzed not only within each case, but also across cases. All data were coded into minor codes, which were collapsed into major codes and then placed into categories. This inductive and emergent analysis procedure allowed for emerging categories, themes, patterns, and domains to emerge and be identified from the data.

Triangulation, which involves the process of using data from different sources (surveys, observations with field notes, and documents) to corroborate, elaborate, or illuminate the research in question, was performed. Triangulation was done on the documents and artifacts reviewed in relation to the second-year curricular materials presented by faculty, materials accumulated by the randomly selected students for review, and content and experiences reported by informants. In addition, these materials were reviewed and analyzed for similarities and dissimilarities with the informants' reported exposure and experiences. This information was then used to cross-validate additional cross-cultural findings and informants' meanings from the data against the surveys, recorded observations, and document analysis. The authors also checked for potential biases resulting from the researcher role.

Learning Points From the Experience

Participants reported learning points that could be categorized under four headings: the Cherokee as a People; Cultural Integration; Globalization; and Pre-conference design. These are considered, in turn, in this section.

The Cherokee

Participants' noted that the Cherokee are a people and not a geographical community. Several commented on how sometimes they were able to recognize native Indian people by their appearance (the faces). Generally, participants reported overriding impressions of the Cherokee as intelligent, quick-witted, proud, strong of heart, generous, and compassionate. Several times throughout the visit, the Cherokee demonstrated their humor and generosity to the global participants as well as their sense of pride.

Several participants were saddened, but not surprised to hear the way that the Cherokee have been treated. The most commonly cited reference was the Trial of Tears. Participants noted that this action taken by the US government was a sad commentary and the Trail of Tear story brought out the Cherokee's pride in their heritage. Several participants noted that there is no choice for the Cherokee in the US other than to act as "white" Americans do. However, US participants noted that they were satisfied that the Cherokee are able to express Indian folklore. Some participants noted that some of the "real stuff" (herbal medicine, certain rituals) continues to remain more hidden.

Participants also reported that the Cherokee appeared very proud of their heritage, considered broad and active participation in community activities as important, demonstrated the power of positive thinking, and also demonstrated how a revival and dissemination of some of the 'old' knowledge is possible.

Participants were asked to identify similarities and differences between their own and the Cherokee cultures. The differences were generally connected to symbols, actions, behaviors, and attitudes. For example, the most common "value" mentioned was the Cherokee value of education. The strongest differences reported were in relation to the Cherokee's native food and dance. They have a strong sense of their family, ethnic, and national (tribal) heritage. Also, participants noted that the Cherokee demonstrated different attitudes towards family, wealth (i.e. the lack of value of material goods), and stories. There were also visible differences in behavior and symbols, for example expressing gratitude with small denomination notes, the very visible Seal of the Cherokee Nation. As one person stated,

> Symbols are also important – the Cherokee Seal was everywhere as a symbol of their identity. Perhaps that's an important point to ... when with the Cherokee, I sensed the importance of

> identity more than the importance of culture – who we are seemed more pivotal than what we do and how we do it

With respect to commonalities that participants noted between their own culture and that of the Cherokee culture, participants reported that their daily life seems quite the same and for some, far more than they expected. While the participants noted that the Cherokee dress was not too different, nor were the houses, several participants noted not only were they surprised by the lack of differences, but also that the experience increased their awareness to just how ignorant of the Cherokee way of life they were prior to the learning session.

Cultural Integration

These learning points pertained to trying to maintain one's culture and cultural identity both on a personal level and on a community level. While the participants noted that the Cherokee have certainly integrated their tribal culture with U.S. ways, maintaining the integrity and continuity of a culture is always a matter of great difficulty, no matter what culture is being discussed. However, participants were struck by the passion with which the Cherokee discussed maintaining their cultural identity – for example, when discussing the Cherokee's vision for the future. The majority of participants noted that Chief of the Cherokee Nation, Chief Chad Smith, had a clear and inspiring vision for the Cherokee – a 100-year vision. Several of the participants noted that their own culture did not possess a vision, let alone a 100 year one for their culture, but instead saw their own culture often just going with the flow and suffering as a result. Several of the participants noted that cultures around the world could benefit from following the Cherokee's example of a 100-year vision.

Many participants commented on how the Cherokee maintained an understanding of their history through stories, also stressed the importance of language to maintaining cultural identity. The following are representative commentaries:

> I was struck by how often the Cherokee referred to their history, to the Trail of Tears...events that happened over 100 years ago are fresh in the stories being told today, and drive actions today. That contrasts with the culture I live in, where history is visited occasionally, but is basically something studied in school and then forgotten about in the rapid pace of change.

> Language is certainly a key part of that integrity and continuity – something clearly understood by indigenous cultures around the World (the Welsh, for example, are promoting their language in schools and the media far more now than for centuries).

> Language is something important. Over here when I talk about my trip, I compare the Cherokees with the Basque people in Northern Spain and South of France. They also maintain their language, e.g. traffic signs, in schools.

Globalization

While the participants were mixed on whether or not their views of globalization changed during or after participation in the pre-conference course, they did identify and agree on several key learning points.

Defining globalization appeared to be a challenging task for the participants. While several noted that they had a pre-conceived or "book" definition of globalization, they found that it did not necessarily apply when in the presence of the Cherokee people. Instead, several participants noted that the exposure to the Cherokee, made them re-evaluate their perspective and understanding of the term "globalization" and to reflect upon the most critical aspect(s). Similarly, several participants noted that there was a significant difference between what they perceived as the beginnings of globalization and what the Cherokee defined as the "beginnings". One essential difference was the point of reference: for many participants, the origins of globalization were theoretical, research, or practical based, while for the Cherokee, it is, again, the issue of their culture.

While several of the participants could readily identify economic challenges, geographic factors, and technological limitations, the responses were more limited when it came to applying it to the Cherokee. Some noted that the challenge is coming up with solutions that all members of a culture can live with when it comes to maintaining the integrity and cultural continuity of a culture. Others noted that the challenge is knowing one's own culture and having respect for others. Another identified challenge involved not imposing one's own values and cultural expectations onto an individual or group from a different culture. All of the participants agreed that this last approach limits learning. One participant provided the following example:

> Imposing our own values and cultural expectations is a really stupid thing to do...we are well advised to listen more, observe more, and ask if we do not understand. Most cultures not our own are more than happy to explain how they view things or what role customs play or how clothing and other objects enter into cultural meaning. All we have to do is ask

On the dangers of globalization, participants' comments covered stereotyping, economic survival, and cultural protection, amongst many reactions. For example, participants commented on people's tendency to stereotype others based on color or location and the potential for quantitative instruments to encourage stereotyping in certain circumstances. The following are representative statements:

> It is easy with quantitative instruments to stereotype people – to see US Americans as individualistic, and Chinese as more community-focused. However, those instruments hide so much. There clearly is a core of the Cherokee culture that is very US white American (not sure about the exact label to use there!), but there are aspects of their culture, which are very different. Where, for example, is storytelling picked up by those instruments? I certainly wouldn't make any assumptions about cultures now without visiting them and experiencing them for myself

> The approach to business and the examples given about the economic survival made me think even more to the impact of economy, which is becoming more global, on the preservation of a nation and its cultural heritage

> Bottom line – people need more time to talk through what they are experiencing and there is a need to consider what parts of the culture that is being integrated are sacred and should be protected....

> It struck me how careful we have to be about tampering with cultures. There is so much richness in diversity and globalization threatens to homogenize more than is good for the world. Without retaining the identities of peoples, and their stories and languages, there is a risk that people will lose their roots...drifting from one materialistic trend or fashion to the next. The Cherokee stand a good change of protecting their identity because of their language, the emphasis on stories and their commitment to both democracy and education. They also have a leader who emphasizes progress (a 100 year vision)...progress includes protecting the identity of the Cherokee

When questioned on how the pre-conference had impacted their outlook on globalization, some participants reported that they didn't know if their views were particularly changed. However, they also noted that they would allow a good deal more time for conversation in future cross-cultural interactions. The following are examples:

> It was a great experience in such a short time. I am grateful for our belief that an experience like this could be possible! I would like to spend more time with the members of the Cherokee nation and talk to people inside the nation that have different opinions about the rebirth/preservation of their culture in order to gain a deeper understanding of their issues

> I suspect the most important lesson learned is the need for time to engage in meaningful dialogue with people. And I think the local can become more and more important despite of all the global that is coming to us... I'm not sure the research stresses this enough

> This was a truly special event that role modeled adult learning theory and group dynamics. Jack Mezirow talks about perspective transformations coming from disorienting events – and this event really encouraged me to identify and reflect on my own habits of the mind relative to globalization and cross-cultural ventures.

Pre-conference Design

All of the respondents noted new insights, realizations, and shifts in paradigmatic thinking as a result of the pre-conference experience. Some reported that the learning event had a deeply personal impact, while others took a more distant stance. Participants described the event as beneficial, powerful, interesting, and designed for learning. The following are representative statements made by participants:

> What a powerful and moving experience to "walk among the Cherokee" if only for a few days.
>
> Spending time, even for a short period, with representatives of a culture in their own environment adds always several dimensions (e.g., hearing, seeing, smelling, tasting) to the understanding of that culture.
>
> What I learned was the power of the experience over reading. I learned the power of visiting over inviting people to visit me. I learned the importance of story telling, of identity as well as culture, of language, or traditions, of food. I learned that identity and culture has LESS to do with a geographic location and MORE to do with your heritage, vision, and community.
>
> This was far more powerful than any book or video, or even a talk from the Cherokee in my own culture. Nothing could beat actually visiting with the Cherokee, hearing the stories from them and eating their foods. By being with the people, I could pick up their pain about the past, their determination about the future, and their openness to share that with us.
> I think that I would now approach the researching of other cultures in a different way (more experiential), and would initiate more conversations with others about their cultural differences and about the importance of language.

Several participants noted the benefits of the pre-conference being attended by people from many countries and cultures. It was reported that this "reinforced the experience," and gave participants the opportunity to explore differing opinions, perceptions, and views. For many, the work in Tulsa and the bus journey to and from Tahlequah helped generate the beneficial group dynamics, and that those dynamics benefited them throughout the main AHRD conference. As one participant stated,

> We had two Norwegians, a Dutch guy, a Brit, a South African, a New Zealander, and more. I think that we learned much about each other – again with language having center stage.

Conclusion

The 2001 AHRD Globalization Pre-conference was a special event for many people. Through a collaboration between the pre-conference organizers, local organizers, and the people of the Cherokee Nation, participants were able to dip into a culture and meet key people to discuss the importance of identity and culture and possible actions to retain them under pressure from global forces for change. Participants reported new insights on the importance of identity and culture, and described new approaches they would take when dealing with global and cross-cultural situations.

One aspect of the many learning points was that globalization, whatever form it takes, should not necessarily erode distinct cultures, even if they are a sub-culture of a more dominant society, but should foster stronger cross-cultural awareness and understanding. As participants described, HRD has an important role to play in educating our organizations about the culture and identity of peoples, how to learn about culture/identity, and how to approach globalization in an ethical manner. As some suggested, HRD has a role to play in helping peoples protect their identity through national culture programs supported in the workplace. There are also the challenges of coming up with solutions that all members of a culture can live with when it comes to the maintaining the integrity and continuity of a culture. And finally, globalization has placed differences between nations with respect to vision, human capital, and business ethics in the spotlight.

While various levels of learning occurred throughout this session, it became clear that the pre-conference certainly encouraged participants to reflect upon their learning, values, attitudes, assumptions, beliefs, etc. Perhaps, we as HRD professionals should at the very least, learn how *not* to integrate a culture. In closing, as one participant stated, "Understand the culture and values of others. Respect others and their right to believe and practice the way they choose; and immerse yourself in a culture in order to understand it better".

Limitations

The purpose of this paper is not to present findings from a study using representative samples. It reports the content of a pre-conference and the reactions of those who attended. For those looking for generalizability, a major

limitation of this study was the population itself. The informants were homogenous with respect to age, race, educational level, and socioeconomic status although selection attempted to be representative of the AHRD membership population. It was unevenly distributed with respect to race, mainly monocultural, and gender, both of which are reflective of the overall HRD profession. Finally, while the pre-conference was not designed with replication in mind, it may provide a foundation for future research.

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Training Expenditures and Practices: Findings from the Netherlands

Jan N. Streumer
A.A.M. (Ida) Wognum
C.H.E. (Kitty) Kwakman
Beatrice I. J. M. van der Heijden
University of Twente

Simone van Zolingen
University of Nijmegen

This study consists of two parts. Present and expected developments in the field of training and development in work organizations are being studied, with specific attention to their consequences for the knowledge and skills (competencies) of training specialists. A survey among a select group of respondents attempted to gain an insight into the costs of and participation in training activities by employees in work organizations.

Keywords: HRD Trends, Survey Study, Comparative Study

In the 1980s the Faculty of Educational Science & Technology conducted the 'HRD in the Netherlands' (BEDON) study (Mulder, Akkerman & Bentvelsen, 1989). Since that time there have been many changes in the field of HRD (Streumer, Van der Klink, & Van de Brink, 1999) due to trends and developments within organizations as well as in society. There has not, however, been much research conducted into the impact of these new trends and developments on the training function. Consequently, the gap between training reality and theory development in the field of training has not yet been bridged. This was the reason for the Faculty of Educational Science & Technology of the University of Twente to decide to conduct the BEDON study once again together with the Faculty of Technology and Management. The results of the first part-study (Kwakman, Van der Heijden, Streumer, Wognum, & Van Zolingen, 2001) will be reported separately. The results of the survey are presented in this paper.

Research Questions

The following research questions are central to this part of the BEDON study:
(1) To what extent was there participation in training activities within companies in the year 1998 and what costs were involved?; (2) To what extent is this participation subject to change (situation year 2002)?; and (3) To what extent can participation and costs be ascribed to developments in work organizations and the training function within these organizations?

The term training activities refers to a wide range of interventions in the field of training and development of personnel within work organizations, including learning within development paths, on-the-job and off-the-job training, self-study activities and forms of 'learning while working'.

Method

Research Population. This part of the study made use of a targeted sample survey. Our own data files, which are compiled from a selection of respondents from the NVvO file [Dutch Association of Training Officers], a selection from the O&O file [Training & Development Journal] and a selection from the TOPOS file (alumni of the Faculty of Educational Science & Technology employed in training positions), were used to select the names of people who hold management positions in the world of training and personnel policy. This involved a sample survey of 180 people. All these people were telephoned by a research assistant and asked if they would be prepared to take part in the study; a total of 150 people were willing to do so. They were all sent questionnaires with an accompanying letter. Upon receipt of the questionnaire a total of 15 people immediately informed us that on reflection they were unable to participate in the study. From the remaining total of 135 people, after reminders 50 questionnaires were returned (37% response)

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Data Collection. For the data collection a written questionnaire was used that had been developed to be able to answer the research questions listed above. The first and second research questions (To what extent was there participation in training activities within companies in the year 1998 and what costs were involved? To what extent is this participation subject to change –situation year 2002-?) were developed for this purpose into a number of sub-questions, which were divided into a 'participation' part and a 'costs' part.

The sub-questions for participation are as follows:

1. In which type of training activities have employees participated (reference date 1998) and is an increase or a decrease in the participation expected in the training activities mentioned (reference date 2002)?
2. How can the training activities mentioned under 1 best be characterized (on-the-job versus off-the-job, internal versus external, time invested within versus outside working hours, participation of men versus women)?
3. In which substantive training domains have employees participated (reference date 1998) and is an increase or decrease in participation expected in the above-mentioned training domains (reference date 2002)?
4. To what extent are the strategic goals of the organization of importance when participating in training activities (reference date 1998) and is an increase or decrease in that importance expected (reference date 2002)?
5. What type of training providers conducted the training activities (reference date 1998) and is an increase or decrease expected in the type of training providers mentioned (reference date 2002)?

The sub-questions for costs are as follows:

6. How large is the budget for training activities and what percentage of the gross wage bill does that involve (reference date 1998)?
7. What types of training costs have been included in the budget calculations mentioned under question 6?

A questionnaire was drawn up based on the research questions and sub-questions. This questionnaire consisted of three parts: a part relating to general details (type of official and level of education, branch of industry and sector to which the organisation belongs, etc.), a part in which questions were raised about 'participation', and finally, a part dealing with 'costs'.

Analysis. The data were entered in an SPSS data file and analyzed with the aid of descriptive analysis techniques and crosstabs. Problems relating to scoring the analysis of the open questions and the classification of continuous variables were dealt with in the project team and, where necessary, unambiguous scoring rules were drawn up to avoid differences in interpretation.

Results

The results will be dealt with in line with the three parts mentioned above that comprise the questionnaire.

General Data. Fifty respondents completed the questionnaire: 34 men and 16 women. Of the respondent group, 67% are part of senior management; 28% of middle management and 4% have a position as director. Of the respondents, 84% have full-time employment, and 16% a part-time job. Of the respondents, 56% have had a university education, 32% have gone through higher professional education, 6% senior secondary vocational education, and of 6% the level of education is unknown.

The companies where the respondents are employed operate in the following branches: 11 companies (22%) fall under 'industry', 2 companies (4%) are involved in the 'construction industry', or are technical contractors, 8 companies (16%) are occupied in 'trade or the hotel and catering sector', 6 companies (12%) belong to the 'transport, storage and communication' category, 13 companies (26%) provide commercial services, while 10 companies (20%) are engaged in the 'other services' branch. Of the above-mentioned companies, 41 (82%) are in the profit sector, and 9 (18%) the non-profit sector. The company size (in employee numbers) 0-100 is not found among companies that are part of the 'industry' branch; among 'other services' the company size 101-500 is missing. The largest companies (3001and above) are found most frequently in the commercial services category. The companies are fairly equally divided as regards numbers over the various categories of branches.

The companies taking part in the study can in general be characterized as large companies (the average number of employees is 3054). This applies even more so when taking into consideration the fact that at least 32% of the respondents completed the question about numbers of employees for the unit where they work, or for which they have full or partial responsibility. Of the respondents, 24 % completed the questionnaire from the perspective of the entire organization (both national and international), 44% from the perspective of the organization at national level, 18% for that part of the organization where the respondent works and 14% for the part of the organization for which he has full or partial responsibility.

Participation

Question 1: In which Type of Training Activities have Employees Participated? The questionnaire included a total of 10 types of training activities in which employees had participated in 1998: long, medium or short training, one or two-day activities, short sessions of a few hours' duration, short instruction provided informally on-the-job, self-study, learning while working, learning in a development path, and others. For each of the training activities, employees were asked if they had participated (yes, no, don't know) and whether participation was expected to increase (remain the same, decrease, increase) (reference date 2002). The respondents were allowed to tick more than one training activity. It can be deduced from the data that short training programmes with fewer than 10 sessions were the most frequently used (98%), closely followed by short one or two-day activities, such as a conference or workshop (96%). Learning while working, where employees themselves try something out, learn the ropes or practise a new activity, also had a high score (91%).

The respondents expressed the expectation that learning within development paths, such as job rotation and management development, would experience the strongest growth (57%). Following some way behind were 'learning while working' (trying out new activities oneself, learning the ropes on new activities), with 43% of the respondents believing that this training activity would increase and, more or less equal, with 39% and 38% respectively, 'informal, short instruction and coaching, mainly on-the-job, and 'self-study'

Question 2: How can the Training Activities Mentioned under 1 best be Characterised (on-the-job versus off-the-job, internal versus external, time invested within versus outside working hours, participation of men versus women)? The respondents were asked to express as a percentage the proportion of training conducted on the job or off it, internal versus external training, training within and outside working hours and the participation of men and women. In addition, the respondents gave an estimate of the percentage of employees who had participated in training in 1998. The results show that the most training (65%) still takes place off the job, 46% of training is provided at an external location. The research results indicate that 70% of the training enjoyed by employees takes place during working hours. The percentage of training that is attended by men is almost twice as great as that by women (66% and 34% respectively). The results further show that 62% of the total number of employees about whom the respondents reported had participated in training activities in 1998.

Question 3: In which Substantive Training Domains have Employees Participated (reference date 1998) and is an Increase or Decrease in Participation Expected in the above-mentioned Training Domains (reference date 2002)? In the questionnaire, a total of 14 substantive training domains were identified, in which employees had participated in the training activities. These included sector and branch-specific training, communication skills, personal effectiveness, quality assurance, computer usage and automation and internal company organization. Table 1 reflects these substantive domains and the respondents' answers have been incorporated in it, with a distinction being made between participation in 1998 and the expected decrease or growth up to 2002. The respondents were allowed to give more than one answer.

From the results in table 1, it can be deduced that both the sector and branch-specific training programs and the training programs in the field of management, enterprise and policy occur frequently (in 94% and 93% respectively of the companies on which the respondents reported), followed at a slight distance behind by training programs in the field of verbal communication skills, and computer usage and automation (both 89%). The respondents expected the greatest increase in training in the field of personal effectiveness (56%) and personal growth (56%), while a sharp increase is also expected in training activities in the field of management, enterprise and policy (45%) and marketing, sales and public relations (42%).

Question 4: To what Extent are the Strategic Goals of the Organisation of Importance when Participating in Training Activities (reference date 1998) and is an Increase or Decrease in that Importance Expected (reference date 2002)? In the questionnaire, the strategic goals were broken down into eight specific goals that may be of importance for participation in training activities (including effective deployment of personnel, meeting quality standards, organizational development, and profit increase). The respondents were asked to what extent these goals were of importance for participation in training programs in 1998, and to what extent they are expected to become more or less important up to the year 2002. Table 2 shows the average and standard deviations from the results, where respondents were allowed to give more than one answer. It can be deduced from the results in this table that being able to deploy personnel effectively in 1998 in particular was an important strategic goal for training participation in the responding organizations (M=4.04 on a scale of 1 - very unimportant - to 5 - very important -, SD = .88). The 'meeting quality standards' strategic goal also had a high score (M=3.98, SD=1.00). The respondents did not differ significantly from each other in respect of the importance of these two strategic goals ($p>.05$). This is

the case, however, for the strategic goals of 'organizational development' and 'product innovation'. Respondents who mentioned these as important strategic goals for training participation in 1998 differed significantly from the respondents who indicated that 'being able to deploy personnel effectively' was important for their organization in 1998 (p = .02 and p = .03 respectively).

Table 1. *Participation by Employees in 1998 in Training Activities per Training Domain and Expectation of Increase or Decrease until 2002, Measured on a Scale from 1 = very unimportant to 5 = very important (more than one answer possible)*

Training domain	Participation				Development in participation			
	Yes (%)	No (%)	Don't know (%)	N Total.	Remains the same (%)	Decrease (%)	Growth (%)	N Total
Verbal communication skills	41 (89)	4 (9)	1 (2)	46	22 (61)	1 (3)	13 (36)	36
Written communication skills	36 (78)	9 (20)	1 (2)	46	24 (77)	1 (3)	6 (19)	31
Language skills (Dutch/ modern languages)	38 (81)	8 (17)	1 (2)	47	21 (64)	1 (3)	11 (33)	33
Personal effectiveness	38 (81)	9 (19)	-	47	14 (44)	-	18 (56)	32
Management, enterprise and policy	43 (93)	2 (4)	1 (2)	46	21 (55)	-	17 (45)	38
Personnel, education and training	32 (70)	10 (22)	3 (7)	46	22 (81)	1 (4)	4 (15)	27
Quality, working conditions and environment	38 (81)	5 (11)	4 (9)	47	23 (72)	2 (6)	7 (22)	32
Internal company organization	29 (63)	14 (30)	3 (7)	46	18 (90)	-	2 (10)	20
Marketing, sales and PR	32 (70)	12 (26)	2 (4)	46	13 (54)	1 (4)	10 (42)	24
Personal development	31 (67)	12 (26)	3 (7)	46	11 (41)	1 (4)	15 (56)	27
Business accounting	33 (73)	10 (22)	2 (4)	45	20 (83)	-	4 (17)	24
Computer usage and automation	42 (89)	5 (11)	-	47	17 (47)	6 (17)	13 (36)	36
Technology and maintenance	29 (62)	13 (28)	5 (11)	47	18 (82)	1 (5)	3 (14)	22
Sector and branch-specific training	44 (94)	1 (2)	2 (4)	47	24 (63)	-	14 (37)	38

N= 50

With the exception of the 'other strategic goals' column, respondents expected a significant increase in the importance of all strategic goals up to 2002 (p<.05). For 'effective deployment of personnel' and 'meeting quality standards', for example, the average expected for 2002 is 4.62 and 418 respectively (SD=.72 and SD=.84 respectively). These are rated significantly higher in importance than was the case in 1998 (M=4.04 and 3.98 respectively, SD=.88 and SD=1.00 respectively, p=.00). Which strategic goals were considered to be the most important does not, however, depend on the branch of industry or sector (profit or non-profit) to which the respondents' company belongs, with the exception of the 'market share' strategic goal, where significant differences between branches were observed (chi-square = .18).

Table 2. *Importance of Strategic Goals for Training Participation in 1998 and Expected Importance in 2002*

Strategic goals	Importance in 1998		Importance in 2002	
	M (SD)	N	M (SD)	N
Effective deployment of personnel	4.04 (.88)	47	4.62 (.72)	45
Meeting quality standards	3.98 (1.00)	46	4.18 (.84)	44
Organisational development	3.64 (.90)	47	3.91 (.86)	44
Profit increase	3.50 (1.21)	46	3.67 (1.27)	43
Increase in market share	3.44 (1.18)	43	3.70 (1.26)	40
Improvement in labour relations	3.18 (1.02)	44	3.42 (1.07)	43
Product innovation	3.34 (1.15)	41	3.50 (1.20)	38
Internationalisation	2.36 (1.28)	44	2.78 (1.46)	40
Other	4.50 (.71)	2	4.50 (.71)	2

N=50

Question 5: What type of Training Providers conducted the Training Activities (reference date 1998) and is an Increase or Decrease expected in the Type of Training Providers (reference date 2002)? The questionnaire distinguished six types of organisation offering training, including regional training centers, higher vocational colleges, universities, private training agencies, and brach organizations, in addition to the in-house training department. A remainder category ('other') was also identified. The respondents were asked to indicate which providers had conducted the training activities in 1998 (choice of answers: yes, no, don't know) and to what extent they expected the share of such organisations to increase or decrease (in percentage terms) up to 2002. The respondents were allowed to give more than one answer. These results are presented in Table 3.

Table 3: Percentage Conducted by Training Providers in 1998 and Expected to be Conducted in 2002

Training providers	Conducted in 1998				Expected decrease/growth until 2002			
	Yes (%)	No (%)	Don't know (%)	N	Remains the same (%)	Decreme (%)	Increase (%)	N
Reg. Training centers	26 (59)	17 (39)	1 (2)	44	15 (75)	1 (5)	4 (20)	20
Vocational colleges	33 (70)	12 (26)	2 (4)	47	15 (63)	2 (8)	7 (29)	24
Universities	25 (53)	21 (45)	1 (2)	47	13 (81)	-	3 (19)	16
Training Agencies	42 (91)	4 (9)	-	46	15 (45)	-	18 (55)	33
Branch organization	31 (67)	13 (28)	2 (4)	46	15 (60)	-	10 (40)	25
In-house Training Dept	39 (85)	7 (15)		46	12 (43)	2 (7)	14 (50)	28
Other	8 (10)	-		8	2 (33)	1 (17)	3 (50)	6

N=50

From the data in table 3, it can be seen that training activities in 1998 were provided principally by private training agencies (91%) and the in-house training department (85%). An increase in the provision of training activities is expected for both providers by 50% and 55% respectively of the respondents. For the remaining categories of training providers, the majority of the respondents expected the provision of activities to remain the same: 75% of the respondents believed that to be the case for regional training centers, 63% for institutions of higher professional education, 81% for universities and 60% for branch institutions.

Costs

Question 6: How Large is the Budget for Training Activities and What Percentage of the Gross Wage Bill does that Involve (reference date 1998)? The respondents were first of all asked to indicate how large the budget was in 1998 for all imaginable forms of training activities in their organization. They were then asked what costs were actually incurred in total in 1998 for all imaginable training activities. At the same time, the respondents were also asked to fill in the budget and the actual costs for the entire organization (both national and international), the organization at national level, the organizational unit where the respondent was employed, the organizational unit for which the respondent was responsible. The respondents were allowed to complete the questions for one or more organizational units, depending on the information they had available. Both the budgets and the costs had to be stated in multiples of Euro 1,000.

Judging by the respondents' reactions, it appears that they found both questions extremely difficult. Only a section of the respondents managed to answer in part one or both questions. In total, 11 respondents (22%) entirely abandoned attempts to complete both questions. The maximum number of respondents per part of the two questions was 18 (for the question relating to the budget for the national part of the organisation). This indicates the fact that the respondents are not well informed about the costs involved in training programmes or that the financial 'training accounting' at many companies is not in order. Standard deviations have been calculated for the training budgets and costs. The high standard deviations show that the budgets available for education and training and the resources invested in them vary very greatly. One important factor here is that company size also varies greatly, and some respondents mentioned the training budgets of the whole multinational (national and international), without breaking them down. Since, moreover, there is insufficient insight into the numbers of employees who have participated in education and training in the relevant companies, these amounts have very little meaning. For these reasons (scant reliability of the data, insufficient insight into the investments per trainee, etc.), it was not possible for the questions relating to training budgets and the resources actually invested to be answered adequately.

The respondents were further asked to indicate what percentage of the gross wage bill, including employer's expenses, was in their opinion spent on training activities in 1998. They were also able to answer this question for the whole organization (both national and international), the entire organization at national level, the organizational unit where the respondent worked, the organizational unit for which the respondent was responsible. When the percentage was unknown, they were able to indicate that too; nine respondents did so. From the data, it can be concluded that work organizations spend on average between 2.29% and 3.38% of their gross wage bill on training programs. There, however, are large differences between companies and business units. There were extreme percentages of 8% and 0.2% mentioned. Many of the 50 respondents did not know what percentage of the wage bill was spent on training programs at the different organizational levels and units. One common problem - which also had an influence here on the percentage of the gross wage bill spent on all the forms of education and training mentioned by the respondents - is that work organizations differ in what they understand by 'gross wage bill'. This may 'pollute' the percentage found in this study.

Question 7: What types of training costs have been included in the budget calculations mentioned in question 6? Another problem that plays a role in determining the costs invested in education and training is that there is

ambiguity as regards the types of costs that are included in the calculation of training costs. The respondents were therefore asked to indicate which types of training costs they believed were included in the calculations for determining the amounts invested in education and training. Table 4 contains the results of this question. From these results, it can be deduced that the costs are mainly trainer-linked (according to 84% of the respondents). As far as the other types of costs are concerned, fewer respondents were of the opinion that these are a part of the training costs: 65% thought that the costs for training facilities must be included in the calculation, 64% believed that this applies to student-linked costs, 57% for costs for training development, and only 49% included in administrative and management costs.

Table 4: Types of Costs included in the Calculation of the Percentage of the Gross Wage Bill spent on all Imaginable Forms of Training Activities in 1998.

Types of costs	Yes (%)	No (%)	Don't know (%)	Total N
Student-linked costs	23 (64)	11 (31)	2 (6)	36
Trainer-linked costs	31 (84)	4 (11)	2 (5)	37
Administrative and Management costs	17 (49)	16 (46)	2 (6)	35
Costs of the training facilities	22 (65)	10 (29)	2 (6)	34
Costs for training development	20 (57)	13 (37)	2 (6)	35
Costs for on-the-job training	19 (29)	23 (66)	2 (6)	35

N=50

Conclusions and Discussion

The conclusions will be discussed in the same order in which the subjects were raised in this article. At the same time, an answer is provided to the third research question (*To what extent can participation and costs be ascribed to developments in work organizations and the training function within these organizations?)* by commenting on the results that were collected in this study, in the light of internal developments on the labor market, which, of course, cannot be viewed separately from external developments. During the discussion occasioned by these results, a recent study is used that was conducted in the United States, under the auspices of the American Society of Training & Development, *Industry Report 2001,* of the current situation in the field of company training (Van Buren, 2001). In addition, reference is made to the *Intermediair Opleidingsenquête* [Training Survey] (Witziers, 2001; Intermediair, 7 June, 2001). Finally, provisional data from the CBS *Bedrijfsopleidingenonderzoek* [Company training study] is used, based on the press release of May 2001.

General. Comparatively speaking, many large to very large work organizations participated in this study; 30% of the participating organizations even have more than 3000 employees. The data file reveals that in this category of companies 'well-known Dutch and foreign multinationals' were amply represented. The fact that proportionately more large to very large companies form a part of the population implies that the data are not wholly representative of Dutch trade and industry. It is common knowledge that in the Netherlands there are many more companies in the company size up to 100 and from 100-500 than above (NV Databank, Chambers of Commerce and Industry, 1995). Research has also shown that small and large companies differ considerably from each other as regards the type of training and learning activities that they provide to their employees and the nature and extent of such efforts (CBS press release 22 May, 2001, Wognum & Bartlett, 2001; Smits, Wognum & Pye, 2001).

Participation. It was established in this study that, as regards types of training activities, short training programs with fewer than 10 sessions and one or two-day activities, such as conferences and workshops, were, according to the respondents, the most frequently used, and that these training activities would also remain of importance in the years ahead. The training activity 'learning while working' is now highly regarded and its importance in the coming years was expected to increase further.

Growth was mainly to be found, according to the respondents, in more 'informal' forms of learning, such as learning within a development pathway, job rotation and management development.

The findings of this study as regards training activities tally with the results of the *Industry Report 2001* by the ASTD (Van Buren, 2001). It is true that this report concluded that 'classroom training' still has an important share of the training activities, and will even increase in importance, but that companies will start to operate a more 'blended approach', where both 'classroom training' and 'informal' forms of learning (including 'job rotation' and 'cross training') are used.

It is striking that both in this study and the *Industry Report 2001* 'instructor-led classroom training' (traditional training programs) appears not to have been superseded by more 'informal' forms of training and learning and, more particularly, as appears in the *Industry Report 2001,* by e-learning. This last form of training and learning is still receiving mainly lip service. The prediction that 23% of all education and training in the United States in 2000

would be provided via e-learning does not appear to be based on facts. From the results of the *Industry Report*, it would even appear that the percentage of e-learning fell from 9.1% in 1997 to 8.4% in 1999. In the current study e-learning has not yet been included as a specific type of training activity. An explanation for this omission is that the study has been designed in 1998.

When the training domains are studied, it is striking that 'sector and branch-specific training' and 'management, enterprise and policy' training domains attracted the most participants in 1998. The *Intermediair Opleidingsenquête* [Training Survey] (Witziers, 2001) also indicated that management training programs were the most popular. What is also interesting in the *Intermediair Opleidingsenquête* is that participation in training programs, particularly by highly educated personnel, has fallen drastically, but that the participation of board members and management in training activities is declining less rapidly.

The *Industry Report 2001* is very clear as far as the demand made by 'branch-specific, job-related and methodical training' on the training expenses of organizations: it absorbs 13% of funds. The American study shows that 10% of the financial resources for education and training go on management training programs'. It is striking that the share of 'job-related and methodical training programs' in the United States is decreasing in favor of, for example, 'interpersonal communication'.

Table 3 of this study reveals further that participation in the 'personal growth' and 'personal effectiveness' training domains is expected to show the strongest growth. This indicates a tendency to bolster the ability of individual employees to exercise self-responsibility in relation to their learning and development pathway. This observation is in line with the results from the *Industry Report 2001*.

As regards the relationship of strategic goals and participation in training, it was established in this study that 'effective deployment of personnel and 'meeting quality standards' were the leaders in 1998. Both strategic goals will increase in importance still further..

It is, moreover, striking that the strategic functions of HRD are already strong right across the board and will strengthen even further. As a result, training will be placed more and more in the function of the strategic policy of the organization and will thus not be an isolated activity.

If we can believe the respondents, growth has, however, now come to an end. It is striking that regional training centers, higher vocational colleges and universities have acquired a good position in the training market. As far as training providers are concerned, it can be ascertained, on the basis of the results of this study, that the private training agencies had the greatest share of this in 1998. As for the position of the private training agencies, approximately half of the respondents were of the opinion that their share of 'out-of-pocket expenses' would continue to grow up to 2002. The *Industry Report 2001*, on the other hand, reported that growth relating to the outsourcing of training activities had come to an end. Training agencies were, according to the *Industry Report 2001*, still responsible for approximately 20% of the training expenses of companies in 1999, against approximately 25% in 1998. One possible explanation for this may be the previously mentioned growth towards more 'informal' forms of learning within work organizations and the 'blended approach' that is linked to them, which companies are starting to operate.

Costs. The survey data show that it is not simple for the respondents to convert participation in company training and the costs involved into figures. This is caused, on the one hand, by the fact that 'training accounting' is not geared to it; on the other hand, it is becoming increasingly difficult to determine exactly what is occurring and what the costs are, particularly due to the growth of more 'informal' forms of training and learning.

The amount of training costs was assessed by the respondents at an average of 2.84% of the gross wage bill for the total organization (national and international), 3.38% for the national part of an organization (or an organization operating exclusively in the Netherlands), 2.29 % for the organizational unit where the respondent worked and 3.03% for the organizational unit for which the respondent was directly responsible.

In comparison, the recently published press release from the CBS about 'company training in the Netherlands' shows that companies in the Netherlands spent Euro 3.1 billion on training programs in 1999, which amounts to 2.7% of labor costs. Large companies spend more on training than do small companies: companies with between 10-99 employees spend 1.8% of labor costs; companies with between 100-499 spend 2.8% of labor costs on training and companies with 500 and more employees beat them all, with 3.8%. These data are fairly in line with the results that were found in the current study.

From the recently published *Industry Report 2001*, it appears that companies with a maximum of 500 employees spend 2.4% of their gross wage bill on education and training, against 1.3% by companies with more than 2000 employees. This is thus substantially less than what has been established in this study and the CBS survey in the Netherlands.

Research into the costs of company training will have to start focusing more on establishing the expenses for 'informal' forms of training in the future. This matter has not yet been explicitly addressed in the current study, and

also in the recently available data from the CBS survey participation in congresses, seminars, organized group discussions and self-study was not included. Informal forms of training and learning go still further than the activities mentioned by the CBS, because they involve all forms of learning and acquisition of knowledge on the job (Streumer & Van der Klink, 2001).

In order to gain a reliable picture of training efforts, it is also desirable for small and medium-sized businesses to include 'informal' training and learning activities. This is because the study shows that small companies learn more through 'work arrangements' and the like than through traditional courses/training programs (Wognum & Bartlett, 2001; Van Buren, 2001).

Furthermore, changes appear to be occurring in the length of formal training. In the United States, the length of training has declined from an average of 23.4 hours per employee in 1998 to an average of 19.6 hours in 2001. Here too, the explanation for this may be that a shift is taking place in favor of 'informal' forms of training and learning and that these have not been taken into account in the figures.

This paper has attempted to provide an answer to the three research questions mentioned. The first two questions have been answered in the 'Results' section, in which the participation in and costs of company training programs were discussed consecutively. As far as the third question is concerned – whether participation and costs are influenced by developments in the work organization and the training function within it – a discussion of the developments in the environment of work organizations and the way in which these developments affect the strategic policy of the work organizations is to be found in the introduction to this article. In this respect, it was also indicated that a shift is occurring in the training function. The training function is moving upwards in the organization, which implies that management realizes the importance of the human capital within organizations and regards its development as crucial.

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Employability By Sector of Industry: Taking Account of Supply and Demand Characteristics

Andries de Grip
Jasper B. van Loo
Jos M.A.F. Sanders
Maastricht University, The Netherlands

In this paper, we investigate the development of an Industry Employability Index taking into account supply and demand determinants of workers' employability as well as industry-dependent facilitating conditions. Although employability is a key element in recent policy debates, both a sound theoretical base and quantitative research on the concept are lacking. This paper integrates various factors in a synthesized index, enabling comparisons between workforce employability in the various industries.

Keywords: Employability, Training, Flexibility

In the last decade the employability concept has received considerable attention in the international media. Both in scientific publications and in government and business policies, the concept of employability has become increasingly important (See e.g. European Commission, 1996). Partly, this interest is aroused by new opinions concerning career development. It is argued that the 'lifetime employment' contract with one employer is no longer relevant for a large share of the working population (Bridges, 1994) and has been replaced by a more dynamic view towards careers (Hyatt, 1995). Hyatt notes that modern careers are characterized by a high degree of flexibility and employees are meant to become 'entrepreneurs of their own career'. Arthur (1994) also predicted a future in which peoples' careers are no longer bounded by a single organization. He states that individual careers in time will become increasingly 'boundaryless'. Hall (1996) empirically proves that the so-called 'protean' career has had its U.S. breakthrough in the late nineteen-eighties and early nineteen-nineties. A protean career is considered to be a pattern of varied experiences in education, training, work in several organizations and changes in occupational field. An important characteristic of a protean career is that individual workers themselves, not organizations, manage it. Hirsch (1987) shows that at least some of the more able and ambitious working people take charge of their careers rather than following an organization's definition of career development.

Problem Statement and Research Questions

In this paper we investigate whether it is possible to develop an Industry Employability Index, which indicates the employability of the workforce in the various sectors of industry taking into account both supply and demand determinants of workers' employability as well as the facilitating conditions in the various sectors of industry. Such an index is highly relevant for HRD as it (1) can be seen as a benchmark for firms with respect to the various aspects of the employability of the workers in their sector of industry and (2) informs workers on their career perspectives and risks in the various sectors of industry. There has, however, been a lot of debate about what is meant exactly by the employability concept. Adding more and more related 'ingredients' to the concept has made it somewhat fuzzy. This leads to a first research question:

1. What is a proper definition of workers' employability based on both Human Resource Development (HRD) and economic literature?

The literature on employability has usually taken individuals as main units of investigation. This paper takes a different view. Employability is approached from the perspective of sectors of industry Building on the definition of employability developed we will conceptualise the various relevant aspects of workers' employability and integrate these factors in a synthesized model which enables us to make comparisons between the employability of the workforce in the various sectors of industry. This leads to the second research question of this paper:

2. How can we characterize the employability of the workforce in the various sectors of industry that takes account of both supply and demand factors?

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For this purpose we develop an industry employability index that relates individual employability to the need for employability and the current opportunities to effectuate employability. This industry employability index can be seen as a stylized facts approach synthesizing the relevant supply and demand side determinants of workers' employability and the facilitating conditions discussed in the literature.

Employability: Meaning of the Concept

Notwithstanding the current attention for employability, it is not a new concept. The first publications on employability date from the mid-fifties (Feintuch, 1955). Thijssen (1998) distinguishes between three types of employability definitions: A core definition, a broader definition, and an all-embracing definition. The core definition of employability encompasses all individual possibilities to be successful in a diversity of jobs in a given labor market situation. In its core definition, employability is therefore only concerned with a worker's capacities; wishes, aspirations or contextual conditions are not relevant here. The broader definition of employability incorporates the capacity as well as the willingness to be successful in a diversity of jobs. In addition, the ability to learn is included. Moreover, contextual factors and so-called 'effectuation conditions' are added. Effectuation conditions are context-bound factors that facilitate a worker's employability, such as e.g. the employer provision of training. In the all-embracing definition, employability encompasses all individual and contextual conditions that determine the future position on the labor market. We therefore define employability as follows: *Being employable involves both the capacity and the willingness to be and to remain attractive for the labor market, by reacting and anticipating on changes in tasks and work environment.* From an economic point of view it is worthwhile to note that this definition refers to both labor supply and demand characteristics and developments.

Theoretical Framework

In this paper, employability is looke[illegible] from the perspective of the various sectors of industry. This contrasts with the existing literature in which no disti[illegible]on is made between the segments in which employees are employed. The latter means that differences in the nee[illegible] employability between the various sectors are not taken into account. In this section we will further develop the c[illegible]nceptual model underlying the measurement of employability at the sector level. This will enable us to indicate the employability of the workforce of the various sectors of industry by using a single index (Industry Employability Index, or IEI). An adequate index of the employability of the workers in the various sectors of industry should take into account both supply and demand determinants of workers' employability as well as the facilitating conditions in the various sectors of industry For this purpose the development of the IEI will be divided into four stages:

Stage 1: Current Personnel Employability

The first stage concerns the measurement of the employability of the current personnel in the various sectors of industry. Two dimensions of individual employability will be used. Firstly, willingness measures peoples' desire to engage in activities that keep them attractive on the labor market. Secondly, capacity is concerned with the power to broadly develop one's position on the labor market.

The *willingness to be mobile across jobs* concerns changing jobs as well as changing work location, both internally and externally. Various authors consider this attribute of workers a key factor in their employability since changes allow workers to gain more knowledge and experience (Hall, 1976). It also prevents a 'concentration of experience' (Thijssen, 1997). Concentration of experience refers to the process that a worker's competences become more and more job-specific due to a long tenure in the same job in the same firm. This concentration of experience can be damaging for workers, since their opportunities to switch to another job in the case of job loss will decrease. The *capacity to be mobile across jobs* is the extent to which employees are actually able to change jobs or work locations. Becoming mobile across jobs starts with willingness but when people lack the capacities to become mobile this willingness is of course less valuable. Therefore, the capacity to be mobile across jobs is the second indicator for a person's employability. This capacity is determined to a large extent by the experience of an employee in previous jobs. Job-specific skills can imply serious handicaps, since this type of experience is only valuable in a limited number of places (see e.g. Booth & Snower, 1996).

The *willingness to participate in training* is workers' willingness to invest time, money and energy in the development of their human capital. Becker (1962) pointed out that this willingness will depend on the expected return on this investment. This return consists of both a direct increase in earnings and an improved labor market position. The latter means an improvement of one's earnings potential (Rosen, 1975). This implies that workers that

are not willing to invest in their human capital run a double risk. Firstly, they do not develop themselves, which causes skills obsolescence (De Grip & Van Loo, 2002) what makes them less attractive for the labor market. Secondly, they give a negative signal to (future) employers, which may reduce their chances on the labor market when employers "screen" employees. (Thurow, 1975). Of course, the *capacity to participate in training* is at least as important. This capacity is particularly determined by workers' basic knowledge (Cf. Bolhuis, 1995).

Functional flexibility can be either quantitative or qualitative (Bolweg & Van Beckhoven, 1995). Qualitative functional flexibility involves doing tasks or duties that are outside the job description of the current job of a worker while quantitative employability refers to flexibility concerning work hours (changing shifts, working overtime). Functional flexibility is a measure for someone's flexibility in a job and is therefore a relevant indicator for individual employability. When someone is *willing to be functionally flexible* but lacks the capacity to do so, this willingness does not add much to someone's employability. *The capacity to be functionally flexible* to a large extent results from actual functional flexibility in the past, which provides employees with a wide range of valuable experience. As was the case with the capacity to be mobile across jobs experience plays a central role here. The essential difference between the concepts, however, is that the capacity to be mobile across jobs refers to changing jobs, while the capacity to be functionally flexible is about performing tasks which are outside one's job.

Stage 2: The Need for Employability: Developments in Society

In this section, the need for employability is discussed. It goes without saying that a sector of industry is, irrespectively of all other conditions, better off with optimally employable personnel. The need for employability is, however, dependent on the intensity of various developments in society. Four main developments can be distinguished (Riddell & Sweetman, 1997): Technological developments, organizational developments, economic developments (i.e. developments in competition and demographic developments.

Ongoing *technological developments* can cause job-specific skills obsolescence, which implies that skills learned in the past and gained experience are no longer sufficient for an adequate job performance (Neuman & Weiss, 1995). Due to the upgrading of the skill requirements in jobs, a gap arises between the human capital workers have and the required human capital (Borghans & De Grip, 2000). In order to bridge this gap, employability plays an important role. Technological developments can also cause jobs to disappear entirely. In the banking industry, for example, information technology has caused the disappearance of traditional teller jobs. When jobs disappear, a worker's employability becomes crucial for continuing labor market participation. However, in this case employers also benefit from an employable workforce since they do not have to bear the cost of expensive outplacement procedures for workers who have to be reallocated.

Technological developments often take place simultaneously with organizational changes (see Bresnahan, Brynjolfsson, & Hitt, 2001). These *organizational developments* demand a lot from workers, in the sense that they must be able to continuously adapt to new circumstances. Modern organizations are set up with a need for flexibility. The more bureaucratic organizations of the past make room for less rigid ones, where employees often work in project teams and have a large degree of control over their own actions. Organizational developments demand a large degree of flexibility, which can be accomplished by being employable. When workers are used to changes in the content of their job due to the fact that they are regularly involved in task-and job-rotation programs or training, both the employee and the employer are more able to adapt to changes faster.

A third important development that several sectors of industry face is the increase in *international competition*. The firms in these sectors need to be able to adapt to changes in the international context faster. This increases their need for a flexible workforce. Moreover, there has been a global shift in the sense that labor intensive production processes have moved to low wage countries around the globe (Wood, 1994) and knowledge intensive production processes like R&D and innovation seem to be concentrated in Western Europe, Japan or the United States. Therefore, most western organizations have started to focus on competing on knowledge and innovative capacity (Porter, 1990). Since well-trained workers are generally better innovators, good training programs should be a key priority for all firms whose competitive power is highly related to the quality of their products or services (Bartel & Lichtenberg, 1987). The increasing international competition therefore demands both flexibility and training efforts from employees.

Finally, *demographic developments* (a greying workforce and a decreasing labor market inflow of youngsters) are important tendencies that require an employable workforce. In many western economies, the share of employees older then 55 will increase sharply in the immediate future. Due to the greying of the workforce, established channels of labor market exit (pre-pension etc) will become less common, because the costs will increase to an unsustainable level. Moreover, in many industrialized economies, an increasing shortage in the supply of younger

workers has been predicted which implies that employers will increasingly feel the need to retain their personnel longer.

Stage 3: Conditions of Effectuation

In the previous two sub-sections the various aspects relevant for the actual employability situation and the need for employability have been mentioned. When there are shortcomings in the available employability, it is profitable for both employees and firms to invest in personnel employability policies. In this third stage, we will identify the possibilities that currently exist within sectors of industry to effectuate or expand workers' employability. Following Thijssen (1998) these possibilities are labeled as 'conditions of effectuation' for workers' employability. Thijssen distinguishes between two types of conditions of effectuation. Contextual conditions of effectuation refer to e.g. the general situation on the labor market, the possibilities for career counseling and the provision of training courses. Personal conditions of effectuation refer to the willingness and the preferences of individual employees. Since this latter type of conditions of effectuation has already been dealt with in the part on individual employability, the conditions of effectuation we discuss in this paper are purely contextual in nature.

Stage 4: The Industry Employability Index

In the final stage of the model, the Industry Employability Index (IEI) is determined. It is based on all previously discussed indicators. Whenever a sector of industry has a high current employability, a moderate need for employability and favorable conditions of effectuation, the IEI-score will be relatively high. When a sector scores badly on one of these elements of the IEI, the value of the IEI will automatically be lower. The IEI may be calculated for the whole population of workers, but also for specific target groups, which are often considered to deserve special attention: Younger workers (16-29 years of age), older workers (50-64 years of age), lower educated workers and female workers.

Methodology

In this section, the proposed strategy to calculate an Industry Employability Index is applied to the Dutch economy. Not all required data are typically available in a single data source. Therefore, in the empirical part of this paper we use various Dutch data-sources: The labor supply and the labor demand surveys of the Organization for Strategic Labor Market Research (OSA) and the labor force survey of Statistics Netherlands (CBS). The various data sources more or less refer to the same point of reference at the mid nineteen nineties. The OSA supply survey data refer to 1996; The OSA demand survey data to 1997 and the CBS data to the bi-annual average 1996-1997. In order to make different quantities comparable, all data were indexed by converting them into standard normally distributed variables and re-scaling them such that the average score is 100. This implies that the resulting Employability Index is not an absolute measure, but a relative measure meant to compare the various sectors of industry according to their employability. In this section we describe and justify our choice of indicators.

Current Individual Employability

The current individual employability of the workforces of the various sectors of industry is measured by six indicators: three measure willingness and three are concerned with capacities. The six indicators are converted into an MTF-score (mobility, training and flexibility) in the way described above.

The willingness to be mobile is measured using data on workers' actual search behavior. When employees apply for new jobs on a regular basis they express their willingness to be mobile across jobs. However, not all search behavior can be considered relevant here. 'Forced' search behavior should not be seen as employability enhancing. For this reason we will focus on the job search of workers on their own initiative, as this implies a willingness to be mobile and this adds to their employability. In order to measure a worker's capacity to be mobile across jobs, we looked at the tenure of individual workers in their current job and divided this by the period individual workers participated in the labor market. This ratio is multiplied by workers' age, because older workers run a greater risk of 'concentration of experience', which decreases their capacity to be mobile.

The willingness to participate in training is measured using data on training participation. We here do not take into account whether or not an employee has successfully completed a training course, as this is not relevant for a worker's willingness to participate in training that was successfully completed. The capacity to participate in

training is measured by the total duration of initial education and previous (firm) training. This reflects Heckman's (1999) notion that "Learning begets learning. Skills acquired early on make learning easier."

Qualitative functional flexibility endows workers with a wide range of different experiences, which improves their employability. The willingness to be quantitatively flexible can, however, also indicate a weak position in the (secondary) labor market. Therefore, for the willingness to be functionally flexible we will focus exclusively on the qualitative dimension of functional flexibility. Finally, the capacity to be functionally flexible is measured by the experience from qualitative functional flexibility in the past. It is calculated by determining the frequency of performing tasks that are not part of one's job in the past.

The Need for Employability

Highly innovative sectors of industry have a high need for employable workers. Since *technological developments* in many sectors of industry are nowadays highly intertwined with improvements or changes in information and communication technology, the percentage of the workforce in a sector of industry that uses a computer regularly during work has been used as an indicator for technological developments. Two indicators combined into one, measure *organizational developments*. The first indicator is the percentage of employees that has experienced reorganizations. The second indicator is the percentage of people that works for a firm where a change in the position of the organization in the larger configuration (parent company, franchisee etc.) has taken place.

Sectors that are open to *international competition*, are expected to have a relatively high need for an employable workforce. The degree of international competition in sectors of industry is measured through the export shares of the industry's production as a proxy of the degree of 'openness' of a sector. Last but not least sectors of industry with a greying workforce highly need employable workers, as their workforce may have old vintages of human capital (Neuman & Weiss, 1995). *Demographic developments* of personnel in the different sectors of industry have been measured by dividing the percentage of older employees (55+) by the percentage of youngsters (16-29 years of age). This indicator shows the severity of greying in the various sectors of industry.

Conditions of Effectuation

The conditions of effectuation of workers' employability are determined by two indicators: (1) the intensity of training provision in the different sectors of industry and (2) the labor market situation (since a strong labor market offers workers more opportunities for further career steps and opportunities to switch to another job than a labor market with shrinking employment). The labor market situation by sector of industry is indicated by expected employment growth in the next five years (ROA, 1997).

Results

This section presents the empirical results obtained when the discussed framework is applied to the Dutch economy. In table 1, all indicators discussed above are presented. The current individual employability of the workforce by sector of industry is presented in the first seven columns. First the six separate employability indicators are presented. Then, in the seventh column all indicators are combined into a single unweighted index (MTF-score). Financial services and hotels/restaurants, repair and business services are the sectors with the most employable employees. In transport and communication, employees are on average the least employable

In column 8 through 12 an overview is presented of the need for employability. Technological developments play an important role in the financial services industry, in the chemicals industry and in the energy and civil service, police, defense and education sectors. Organizational developments are most prominent in hotels/restaurants, repair and business services, as can be seen from the ninth column. The metal and electrical industry are also characterized by important organizational developments. Financial services and agriculture and fisheries are the organizationally most stable sectors of industry. The chemicals sector is the most open sector, as the tenth column shows. In this sector of industry, international competition plays an important role. The greying of the workforce is most prominent in the energy and civil service, police, defense and education sectors.

Table 1. *Industry Employability Index by sector of industry and the various underlying indexes for The Netherlands**

Sector of industry	*Individual Employability*							*Need for Employability*					*Effectuation Conditions*			*IEI*	*IEI*	*IEI*	*IEI*	*IEI*
	WM	CM	WT	CT	WF	CF	*MTF*	TD	OD	ED	DD	*NEED*	TI	ED	CE	*All*	Yng	Old	LE	Fml
Agriculture and fisheries	85	97	91	91	111	110	*97*	84	33	107	105	*97*	87	85	*86*	**86**	84	87	83	101
Food and beverage industry	114	100	105	95	91	104	*101*	95	42	109	94	*99*	99	95	*97*	**100**	110	91	90	102
Chemicals	103	94	102	103	97	112	*102*	106	38	116	102	*105*	105	104	*105*	**102**	108	86	96	102
Metal- and electrical industry	102	104	96	98	105	98	*100*	97	76	111	98	*104*	96	105	*101*	**97**	101	90	95	96
Other industry	101	95	94	96	113	107	*101*	99	40	103	98	*99*	97	99	*98*	**100**	105	90	98	99
Energy	93	105	105	112	103	94	*102*	109	94	102	124	*113*	115	91	*103*	**93**	105	103	89	104
Construction and real estate	100	109	96	95	103	104	*101*	89	35	91	96	*92*	102	98	*100*	**109**	112	96	104	113
Commerce	109	103	92	94	100	106	*100*	98	37	93	92	*94*	93	108	*100*	**107**	118	92	105	106
Transport and communication	97	97	94	92	94	93	*94*	98	50	102	97	*99*	93	103	*98*	**93**	104	81	91	89
Financial services	92	104	119	110	105	85	*103*	116	30	91	93	*98*	118	95	*107*	**112**	133	99	101	116
Hotels/restaurants, repair and business services	109	112	106	101	96	96	*103*	102	100	92	92	*101*	94	118	*106*	**109**	115	93	102	106
Non-commercial services	100	92	98	102	87	94	*96*	97	44	91	97	*96*	100	104	*102*	**102**	109	92	97	100
Civil service, police, defence and educ ation	95	88	102	113	97	98	*99*	107	61	91	112	*103*	100	94	*97*	**93**	105	85	94	91

* WM=Willingness to be Mobile, CM=Capacity to be Mobile, WT=Willingness to be involved in Training, CT=Capacity to be involved in Training, WF=Willingness to be functionally Flexible, CF=Capacity to be functionally Flexible, MTF=Mobility, Training Flexibility Indicator, TD=Technological Developments, OD=Organisational Developments, ED=Economic Developments, DD=Demographic Developments, NEED=Combined Indicator for all developments, TI=Training Intensity, ED=Expansion Demand, CE=Conditions of Effectuation, IEI All=Industry Employability Index for all workers, IEI Yng=Industry Employability Index for younger workers, IEI Old=Industry Employability Index for older workers, IEI LE=Industry Employability Index for lower educated workers, IEI Fml=Industry Employability Index for female workers.

The combination of the four developments we discussed determines the overall need for employability and is shown in column 12. The need for employability is highest in the energy sector, due to the relatively strong effect of all individual developments. In the chemicals sector, three out of four developments distinguished are relevant, which results in a second position on the NEED-index for this sector of industry. On the third place on the NEED-index, we find the metal and electrical industry and the civil service, police, defense and education sector. In these sectors of industry, the organizational and the demographic developments are of key importance.

The "conditions of effectuation" of workers' employability in the various sector of industry are presented in the columns 13-15. In the financial services and energy sector, training intensity is highest. Conversely, employees in agriculture and fisheries are least involved in training. Employment growth forecasts are favorable in the hotels/restaurants, repair and business services and commerce sectors. The employment forecasts are far less favorable in agriculture and fisheries and the energy sector.

Column 15 combines both contextual conditions of effectuation and reveals that the sectors of industry with the most favorable best conditions of effectuation are financial services, hotels/restaurants, repair and business services and chemicals. The agriculture and fisheries, food and beverage and civil service, police, defense and education sectors, however, score relatively low on the conditions of effectuation index.

In column 16, the IEI for all workers is presented. The financial services sector has the best score, which is mainly due to the favorable MTF-scores and the good conditions of effectuation. The construction and real estate sector has the second-highest IEI-score. This is due to a moderate MTF-score and to the fact that the need for employable personnel is lowest in this sector of industry. This combination implies that the available employability (MTF-score) at least partly offsets the demand for employable workers (NEED-score). Moreover, the conditions of effectuation are favorable in construction and real estate. The agriculture and fisheries sector scores worst on the IEI. The individual employability of workers in this sector of industry (MTF-score) is fairly low and although the need for employable workers is not that high, the relatively unfavorable conditions of effectuation (CE-score) give the sector the last position on the IEI-index.

The IEI for Specific Groups of Workers

In column 17-20 an overview is presented of the IEI for four specific groups of workers. For *young workers* (16-29 years old), conditions are most favorable in the financial services sector. The commerce and hotels/restaurants, repair and business services sectors take the second and third place. Current personnel employability (as expressed in the MTF-scores) of young workers in these sectors of industry lags somewhat behind. Agriculture and fisheries has the least favorable employability situation, due to the high need for employability combined with a low MTF-score and relatively unfavorable conditions of effectuation. The transport and communication and the metal- and electrical industry sectors show relatively unfavorable employability-conditions for younger workers as well. This is mainly due to the low current personnel employability (MTF) in these sectors of industry. Commerce, energy and the food and beverage industry are the sectors that have better employability conditions for young workers as compared to the scores for the whole population of workers.

Comparing the overall scores of older workers to the scores for young workers reveals that the IEI for workers aged over 50 is lower in virtually every sector of industry. For the of *older workers* the conditions are most favorable in the energy sector, due to a combination of a relatively high level of current personnel employability, a moderate need for employability and relatively favorable conditions of effectuation. The financial services and the construction and real estate sectors also show a relatively good employability situation for older workers. Older workers in transport and communication, civil service, police, defense and education, and the chemicals industry face the worst prospects when it concerns employability. In the first sector, the employability-situation is worst due to the unfavorable current individual employability of the older workforce. In the other sectors mentioned, the need for employability is fairly high. Moreover, civil service, police, defense and education scores badly due to the very limited conditions of effectuation.

The Industry Employability Index for *lower educated workers* refers to workers with an educational background equal to or less then lower vocational or general education. As was the case with the total population, commerce, construction and real estate, financial services and hotels/restaurants, repair and business services sectors have the best scores for lower educated workers, while agriculture and fisheries ranks last. Commerce beats the other sectors of industry due to the high current personnel employability in this sector of industry. The construction and real estate and commerce sectors are the only sectors where the current employability is higher than the need for employability. Since both sectors are characterized by relatively good conditions of effectuation, they end up with favorable IEI scores. In the agriculture and fisheries sector, the low individual employability of the lower educated is combined with a high need for employable personnel and relatively unfavorable conditions of effectuation. This causes this sector of industry to be the least favorable for lower educated workers.

The differences between *female workers* and the total working population are small. In a number of industries, the employability situation for female workers is better than it is for the population of workers as a whole. This may be largely due to the fact that the share of women that belong to the group of older workers is relatively small due to the very low labor participation of women above 50. As was the case with the total working population, the employability of female personnel is highest in the financial services and construction and real estate. The transport and communication sector also scores worst for female employees.

Conclusions and Recommendations

In this paper, we developed a conceptual framework for an industry employability index (IEI), which gives a quantitative indication of the relative performance of the various sectors of industry concerning the employability of their workforce. The model is applied to 13 sectors of industry in the Netherlans. The financial services sector scores highest on the Industry Employability Index. Other sectors with favorable IEI-scores are construction and real estate and hotels/restaurants, repair and business services. The agriculture and fisheries sector scores worst in terms of

employability. When we look at the IEI for four specific groups of workers, it becomes clear that the employability-situation for older workers is generally a lot worse than it is for their younger colleagues. In addition, lower educated workers are less employable than intermediate or higher-educated individuals. Differences between male and female employees are, however, considered to be rather small.

To obtain a more detailed picture of workers' employability, the collection of firm-specific data would be extremely helpful. Using this data on individual organizations would enable the construction of an employability index at the firm level. Such an index would make the labor market more transparent for employees wanting to gain a better understanding of their development opportunities and their employability in the various firms they intend to apply for a job. Moreover, the comparison of organization-specific employability-scores to the IEI of the sector of industry concerned would enable organizations to gain valuable insights in their own relative employability situation. Such a 'benchmark' would also make clear that employability is not only dependent upon the worker himself, but it is also affected by the organization and the sector of industry a worker is employed in. Another research opportunity would be to use the framework developed in this paper with data from other countries. This would enable comparisons between the employability-situation of sectors of industries in different countries.

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Performance Improvement for Teacher Selection: A Holistic Approach to HRD Interventions

Kiyoe Harada
HRD Research

Jeffry S. Bowman
Bowling Green State University

Teacher selection is one of the most critical tasks for school personnel, to ensure the quality of education. This paper discussed several issues in teacher selection, based on person-job fit and person-organization fit, for a teacher selection model. A holistic approach was taken to propose a model of performance improvement interventions for personnel administrators. Practical and future research implications were also provided.

Keywords: Performance improvement, A model of teacher selection, HRD interventions model

Despite the efforts in improving education (e.g., using new teaching concepts and methods), the current state of education in the U.S. is a great concern, relative to the quality of the future workforce. For instance, American students have continued to perform at a lower level on proficiency tests, which results in increasing training costs among industries. In addition, 60% of newly graduated teachers failed a recent certification exam (Gross, 1999). In this regard, the quality of education is due, in part, to the quality of the people who teach and educate the future workforce. The selection and employment of highly qualified personnel in a school district is one of the most difficult of all administrative tasks (Harris & Monk, 1979).

Problem Statement

In teacher selection, the personnel administrators (e.g., superintendents and school principals) are most intimately involved in the process and in the decision-making. The selection literature has provided suggestions on the process, factors and criteria, errors, as well as other factors in an organizational context to make the best selection. However, hiring decisions are often made during the interview phase where the first impression is most frequently formed. More importantly, at times, personnel administrators tend to rely on their experiences and hunches, among other factors, to make the hiring decisions (Baron, 1993; Triandis & Triandis, 1967). If this is the case, hiring decisions might be interfered with by non-job related factors, misconceptions, and/or psychometric problems.

Training has been used to improve the selection and performance of personnel administrators. However, the effectiveness of such training has shown inconsistent results (Keenan, 1978). This might be because training is seen as a one-shot event without inclusion of other interventions, such as job aids and supports. However, there have not been sufficiently accumulated studies in selection practices, relative to performance improvement in school settings. Consequently, factors that might be related to and involved in the improvement of selection performance may not be well known yet.

The purpose of this paper is to provide a model of performance improvement interventions for teacher selection. Specifically, the study attempts to provide a model of teacher selection by applying the concept of "fit", and it also provides a model of human resource development interventions for the advancement of performance improvement in teacher selection. The term, personnel administrators in this study, refers to superintendents and school principals who are responsible for the selection process and hiring decisions.

Selection Framework

Selection is an information-gathering and decision-making process to identify the best-qualified personnel for the job. It contains four phases: (a) recruitment, (b) screening, (c) interview, and (d) hiring decision-making. Studies of selection in school settings have looked at various aspects, such as: (a) the selection process, (b) job-related factors and non job-related factors related to job qualifications and legal issues, (c) reliability and validity of the rating

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instruments, (d) personality factors, and (e) school culture and leadership (Hirsch, 1999; McDaniel, Whetzel, Schmidt, & Maurer, 1994; Young & Schmidt, 1988). These studies have contributed to increasing the body of knowledge and providing practical implications of teacher selection. The studies have also shown that selection in school settings suffers from the heavy reliance on the interview for decision-making, the interference of non job-related factors, and some psychometric problems (e.g., halo, leniency, and contrast effects) (Noe, Hollenbeck, Gerhart, & Wright, 1994). The following section discusses the selection process.

Recruitment deals with gathering information about job requirements. It focuses on posting and advertising a vacant position and the identification of job requirements and specifications (Noe et al, 1994). In this phase, the principal provides information about the numbers and types of vacant positions to school districts and to the public. The principals also provide information about specific teaching requirements and position specifications. An issue in this phase is that personnel administrators sometimes do not have sufficient time to fill the positions.

Screening deals with determining which applicants will be invited for interviews. Once the vacant position is announced, applicants' letters of application and recommendation, college transcripts, certifications, and portfolios will be sent to the school principals. To select applicants for interviews, the principals evaluate applicants' professional credentials against the teaching requirements and position specifications.

The interview is the most commonly used technique for gathering information. Prior to the interviews, the principals prepare questions and criteria to look for in the best applicants. Principals rate each applicant in a consistent manner, based on established criteria during the interview. However, they tend to be unconsciously influenced by psychometric effects, such as halo effect, contrast effect, and leniency effect. Another issue during the interview is that people tend to develop favoritism, based on closeness in social distance and some kinds of similarities (attraction-similarity), perceived by both the principal and the candidate (Byrne, 1961; Triandis & Triandis, 1967). In addition, the principals are forming impressions of the candidates through the screening and interview phases. These often interfere with ratings, which carry over to the final decision-making phase (Bernardin, 1978; Ivancevich, 1979; Noe et al, 1994). The critical issue is the possibility of non-job-related factors (e.g., age, race, disability, gender, and religion) entering during this stage (Baron, 1993; Young & Schmidt, 1988). Federal statutes prohibit the use of these non-job related factors in employee selection (EEOC, 1978).

Hiring decision-making focuses on the overall evaluation of applicants to make the best match with positions requirements. In an actual teacher selection process, school principals are responsible for making hiring recommendations to superintendents, who present those hiring recommendations to the district board of education for final approval. The decision making process is composed of a series of steps: (a) defining the problem (or kind of decision that has to be made), (b) the goal(s) of the decision, (c) identifying the alternatives to a given decision, (d) identifying the consequences of the decision, (e) the actual making of the decision, and (f) the implementation of the decision (Hoy & Miskel, 1996). Prior to the hiring decision being made, all the information and data from the applicants are rated categorically and listed as items for evaluation. The evaluation focuses on professional credentials used to compare the applicants against job requirements and specifications. These criteria must be measured objectively and consistently. However, impressions made of the candidates have been shown to influence the hiring decision. Furthermore, personnel administrators tend to use their experiences and sometimes hunches and intuition. Because of this, the best hiring choice may not be made. In this regard, there are opportunities for personnel administrators to improve their selection performance.

Theoretical Frameworks: A Model of Teacher Selection and Performance Improvement

Responding to needs for performance improvement in teacher selection, this section discusses a model of teacher selection applying the concept of fit and a model of performance improvement interventions for teacher selection.

To improve performance, a level of performance expectation must be defined in the work context and understood by performers. Because most performance issues lay in multiple layers within a work context, including work itself, performer, and workplace, performance problems are often multi-causal, caused by interactions of some problems and/or reasons concerning different issues, work units, performers, tools, motivations, and other factors (Rosenberg, 1996). In this regard, performance improvement in teacher selection should take a holistic approach. The focus of discussions is on performance improvement of school personnel administrators.

A Model of Teacher Selection

Selection is composed of two critical elements, information gathering and decision-making. For instance, job requirements and position specifications are determined, based on job information collected during recruitment, and a decision on who will be invited for interviews is made in the screening phase. During the interviews, while

information about applicants is gathered, decisions, including criteria to be used and candidates to be selected as finalists are made. The focus of decision-making is a balancing between selection criteria and applicants' qualifications relative to needs in a school. In this regard, the critical issue that personnel administrators are challenged with is whether they should take more consideration of job requirements or needs of the circumstances of a school.

The recent changes in the nature of work require employees to perform more knowledge work and a new type of work collaboration, such as within and outside networking and project teams. As a result, personnel administrators look for more than matching job requirements and applicants (Rynes & Gerhart, 1990). The concept of "fit" has gained increasing interest in selection research because it is concerned with balancing job requirements and organizational attributes, as they apply to individuals. Studies in fit have been shown to improve employee attitudes and job performance (Kristof-Brown, 2000). In this respect, the concept of fit can be applied to a model of teacher selection (Figure 1). There are two forms of fit; (1) Person-Job Fit (PJF), matching an applicant's Knowledge, Skills, and Abilities (KSAs) and the requirements of a specific job, and (2) Person-Organization Fit (POF), matching an applicant's personal factors and broader organizational attributes (Kristof-Brown, 2000; Rynes & Gerhart, 1990). Figure 1 describes factors used in hiring decisions and the two forms of fit in quadrants.

PJF and JRFs. Person-Job Fit (PJF) and Job-Related Factors (JRFs) focus on matching job demands and individual professional credentials. Therefore, PJF and JRFs are concerned with how well the applicants' professional credentials, such as Knowledge, Skills, Abilities, and Experiences (KSAEs) and other qualifications fit the job requirements. These factors are the most frequently used in selection and relate to job and specific task performance (Kristof-Brown, 2000). In this quadrant, potential problems relate to assessing and measuring KSAEs and frequently include the following psychometric errors: (1) halo error (a failure to distinguish among different aspects of performance, particularly exaggerating positive performance), (2) contrast error (comparing individuals to one another instead of against an objective standard), (3) leniency error (giving high ratings to all applicants), and (4) rater bias (consistency in rating among raters) (Noe et al, 1994).

To minimize these errors, training has been provided in industries. The focus of training programs is on interview technique and how to rate performance. Results show a positive relationship between training and reduction of errors as well as participants' confidence (Snodgrass & Wheeler, 1983). However, selection practices in schools as well as a relationship between training for personnel administrators and teacher selection has not been sufficiently looked into. Therefore, a small inquiry was completed for this study to get a feeling for selection practices in school districts, after the literature was reviewed. The sample in this inquiry was randomly selected and comprised 10% of the public school districts in a midwestern state. It was found that most building principals were not provided formal selection and interview training from the districts; instead, their knowledge about selection is from college courses, informally at administrator's meetings, from experience, and by doing actual selection. Only a few districts provided training consultants for their special training needs. However, training fades within three to six months, sometimes before personnel administrators exercise it (Ivancevich, 1979). As a result, when selection time comes, they tend to go back to their experience and hands-on knowledge, and use their intuition and hunches. In this regard, other interventions should be taken into consideration, in regard to retaining gained knowledge and skills. The interventions include selection policies and procedures and job aids (e.g., selection manual, EEOC guidelines, rating handbook, evaluation matrices, etc.).

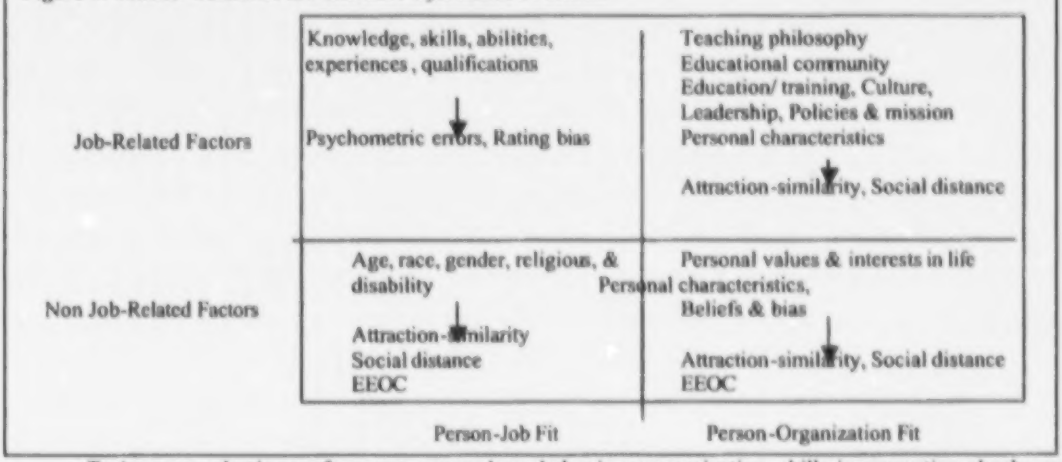
Support from supervisors and other colleagues has been recognized as fostering training transfer (Phye, 1989; Rouiller & Goldstein, 1993; Tracey, Tannenbalum, & Kavanagh, 1995). However, the work of a school principal and superintendent is upper level management in nature. Consequently, hiring decision-making is their responsibility. In this regard, forming a selection task team is an alternative intervention although the ultimate responsibility is personnel administrators. The task team include principals, assistant principals, superintendent and assistant superintendents, which could help to retain the learning intervention. Such a team can be thought of as a community of practice where apprentices can learn from masters.

POF and JRFs. Person-Organization Fit (POF) is concerned with how well individuals can fit into the organizational context, such as culture, the existing leadership structure, community, work groups, and the missions and policies of the school. Any kind of work requires collaboration with others. The nature of a teaching job is the same: the teachers work closely with colleagues, other school district personnel, parents, and members of the community. In this regard, focusing on only job-related factors may not be sufficient to select the best teacher. Therefore, factors relative to POF should not be overlooked.

The Job-related Factors (JRFs) and POF quadrant includes factors of personal characteristics and other non-job related factors (e.g., educational philosophy, work values, area of teaching interest, etc.) The critical issue is how to

minimize favorable perceptions of teacher applicants formed during the interview and decision-making phases. The favorable perceptions are the result of similar-to-me (similarity-attraction effects and social distance) and are also influenced by first impressions. Similar-to-me refers to a perception, developed by sharing common attributes between selection personnel and job applicants (Noe et al, 1994). If people share common teaching philosophies and personal characteristics, they are more comfortable in working together. If personnel administrators, influenced by first impressions, carry such misperceptions to hiring decisions, biases tend to be formed. Consequently, these perceptions also relate to psychometric errors and rating errors. Therefore, minimizing these perceptions is critical.

Figure 1. Teacher Selection & Potential Performance Problems



To improve selection performance, proper knowledge in communication, skills in perception checks, and knowledge in selection errors is important. Therefore, providing training in interpersonal communication, listening skills, and psychometric errors will help personnel administrators improve selection outcomes. At the same time, job aids, including an interview checklist sheet, rating manual and checklist, worksheet, and questioning manual, are also helpful for personnel administrators.

NJRFs and PJF. The Non-Job-Related Factors (NJRFs) and PJF quadrant is concerned with negligence and/or bias entering into the hiring decision. The Statutes clearly forbid the use of race, age, gender, disability, and religion in selection decisions. Most personnel administrators are aware of this; however, they should know how to use the statutes in practice, such as the kinds of questions that might relate to these factors. In this regard, possible interventions include setting up clear selection policies and guidelines, a school mission and policies, and a learning program in EEOC guidelines with legal implications. In addition, skill training, focusing on interview techniques, would also help administrators gain a good understanding of practices.

NJRFs and POF. The Non-Job-Related Factors and POF quadrant focuses on congruence between work context (school environment) and individual values. Factors include personal values, beliefs, interests, personal characteristics, bias, etc. Personnel administrators use PJF factors to eliminate applicants who do not meet job requirements, prior to taking consideration of POF factors. Furthermore, POF is addressed later in the interview phase to see how well the applicant can merge into the school environment. In this regard, personnel administrators may be influenced by their personal preferences, based on similar-to-me, personal characteristics, and individual beliefs and values. These preferences relate to psychometric errors, based on the theories of attraction-similarity and social distance and could lead to legal problems. Possible performance improvement interventions include leadership training programs, and job aids (e.g., policies and procedures, standard performance guidelines). In addition, taking a personal characteristics inventory could help the personnel administrators become aware of himself/herself and help to avoid personal bias and preference in selection.

A Model of Performance Improvement Interventions

The literature indicates that neither can experience without proper knowledge and skills be enough to perform selection, nor can knowledge without experiences be sufficient to bring the best qualified teachers in to schools.

Effective teacher selection comes from KSAEs taken together with scientific and systematic analysis of performance within the work context (Spitzer, 1992).

Human Performance Technology (HPT) is a systematized process for solving performance problems and identifying performance to be improved. It begins with systematic and systemic analyses of job performance, to define gaps between "what is" and "what should be." Performance gaps at the various levels in an organization (e.g., organization, process, individual, and work group) are analyzed to determine whether the gap should be filled or not. If there is a need for a performance gap to be filled, possible interventions are proposed to eliminate the gap (Langdon, Whiteside, & McKenna, 1999; Spitzer, 1992).

Performance improvement interventions are defined as means that are used to bring about changes in the performance of an individual, a work group, a business unit, a process, and a workplace, for the purpose of establishing, improving, maintaining, and/or distinguishing performance (Langdon et al, 1999). Therefore, holistic performance improvement interventions are recommended, based on both the cause and the context of job performance problems or performance improvement opportunities. Interventions can range from a relatively small change (a tool or procedure) to an entire organizational structure and system change. As such, the interventions can take various forms, such as learning programs, job aids, coaching and mentoring, performance standards, feedback, expert system, etc. Of these, the most promising interventions, based on systemic, results-focused, cost-effective, and comprehensive analyses, are used to improve target performance (Brandenburg & Binder, 1992; Spitzer, 1992).

Applying performance improvement technology to the improvement of teacher selection performance of personnel administrators, a model of performance interventions is proposed (Table 1). It describes each phase in the selection process, addressing selection issues in each phase, and discussions are based on integrating the teacher selection model and performance improvement interventions for teacher selection improvement.

Recruitment. One of the difficulties that personnel administrators face is the time allowed them to fill a vacant position. This problem might be due to any of several reasons, such as difficulty in predicting teacher vacancies, a lack of resources and/or administrative supports, and a lack of knowledge in recruitment procedures. Depending on the focus of performance level, potential interventions are: (a) setting up short-term and long-term human resource planning, which helps identify when and what vacant positions may appear, (b) appointing administrative staff to support recruitment, (c) establishing selection policies and standard procedures as guidance, and (d) identifying job and position requirements in the school. Training intervention is effective when personnel administrators lack proper KSAEs to do teacher selection. Personnel administrators often use informal learning opportunities, such as peer discussions, learning-by-doing, and OJT to know selection practices. Therefore, a formal training program, dealing with the overall selection process, practices, and methods, would be helpful.

Screening. Professional credentials of applicants are sent to school principals. To make sure all necessary applicant documents are gathered is sometimes a very tedious job for principals. Therefore, administrative support is critical to assure all required documents are ready for evaluation. At this stage, school principals should have a good understanding of job-related criteria for the teaching positions and clear ideas about what to ask and what not to ask, as well as what to look for in the teacher applicants. These concerns relate to their awareness of the pertinent legal issues and the consequences of not following them during screening and interview. Note that school principals tend to be influenced by errors, associated with first impressions and similar to me, through documents from applicants.

In this situation, intervention is designed to minimize such errors. For instance, job aids, could include: (a) a screening manual, (b) rating and interview manual, (c) guidebook for interview questions, (d) rating matrices (e.g., candidates x credentials and interview items x responses), and (e) EEOC guidelines. A formal learning intervention, such as training, is also important when the rating issue relates to psychometric errors.

Interview. Interviews are considered the focal point in the selection process because many personnel administrators tend to make hiring decisions at this stage. In addition, due to the popularity of the interview in selection, many personnel administrators rely on their experience in interview techniques. However, the literature shows that experience does not always provide proper knowledge. There is a difference in the effectiveness of ratings between those who use experience and those who have training. More importantly, those who do not have interview experience are eager to learn interview techniques and they transfer training into practice (Ford, Quinones, Sega, & Sorra, 1992). In this respect, training, (e.g., interview techniques and rating themes) is an appropriate intervention. The interview provides face-to-face communication, which requires skills in interpersonal communication and listening. Therefore, these skill-training programs are also helpful in performance improvement. Regarding job aids, an interview manual, a booklet for interview question items, and EEOC guidelines can be

helpful, particularly in retaining learning interventions in individuals. Another intervention could be a task team for selection and/or interviews. In this regard, while a principal is giving the interview, other personnel, such as an assistant principal, can provide assistance.

Decision. Hiring decisions should not be interfered with by any non-job-related factors; therefore, job and position requirements are heavily focused on. It is equally important to rate selection criteria against professional credentials. Making judgments on those credentials inherently contains psychometric errors, as discussed in the previous section. It is almost impossible to completely remove these psychometric errors from ratings. The issue is minimizing errors. In this regard, educational programs, focusing on not only psychometric errors, but also understanding factors behind the errors, are very important in designing interventions.

Table 1. *A Mode of HRD Performance Improvement Interventions for Teacher Selection*

	What Is	**What Should Be**	**Possible Interventions**
Recruitment	Vacant position announcement Job requirements and specifications	Vacant position announcement Job requirements and specifications Promptness Policies & human resource planning	Short-term and long-term human resource plans Checklist for job requirements and specifications Appoint support persons Guide for selection policies and procedures Selection training
Screening	Receiving applicants' documents (e.g., letters of application, transcripts, recommendations) Assessing professional credentials Identifying candidates for interviews	Receiving applicants' documents (e.g., applications, transcripts, & recommendations) Analyzing professional credentials Knowing what to look for Identifying candidates for interviews Preparing interview questions & responses checklist Setting up criteria & rating theme and preparing interview rating sheets	Administrative supports & resources Screening and raging manuals Matrix (candidates x credentials) Matrix (interview items x responses) Interview manual for questions
Interview	Asking questions Job-related & non job-related items Rating professional credentials and responses Using experience & knowledge of interview techniques	Asking appropriate questions Job-related & non job-related items Rating professional credentials and responses and interview responses Recognizing verbal & non – verbal communication	Interview guide booklet and mamual Interview and rating training Task team for selection Interpersonal communication skills training Interview rating matrices EEOC guidance
Hiring Decision	Evaluating candidates' credentials Decisions made, based on experience, intuition, hunches, & non-job-related items Selecting the best-qualified candidates	Analyzing & evaluating candidates' credentials, and interview ratings Selecting the best qualified candidates, based on job-related and non-job-related factors Recognizing whether job fit or organization fit is emphasized	Decision-making manual Decision-making chart Hiring policies and standard procedures Performance standards for personnel administrators

In addition, skill training, such as interpersonal communication, listening, and decision making, is equally important to assure the effectiveness of selection performance. Possible job aids for personnel administrators include a decision-making manual and chart, and decision checklists. Because OJT and information learning have been commonly used among personnel administrators, coaching and mentoring from experienced and knowledgeable school principals and/or superintendents are also alternative interventions.

Feedback can be used as a performance improvement intervention. It is always helpful if personnel administrators evaluate newly hired teachers, by using 360-degree feedback. Such information should not be used for performance appraisal, but should be used to see how effective the selection criteria and the factors used for hiring decisions might be. In other words, this information should be used to improve teacher selection. In addition, personnel administrators can evaluate themselves against objective criteria of their performance in teacher selection. Objective criteria can include following up performance of newly hired teachers and getting feedback from peer teachers and parents.

Practical and Future Research Implications

A model of teacher selection and a proposed model of HRD performance improvement interventions for teacher selection have been discussed. Because a performance problem contains multi-facted causes within a work context, a holistic approach was taken into consideration in this paper to provide practical suggestions in selection practices and comprehensive performance improvement interventions for teacher selection.

For future research implications, there have not been adequate studies in teacher selection in school settings. After a literature review was completed, in order to get some information about selection practices, an inquiry was undertaken, by randomly selecting 10% of the public school districts in a midwestern state and conversations were held with central office personnel. The findings included: (a) the principals were either the sole or the major official responsible for the teacher selection process in their own buildings, (b) the principals did their own applicant screening (87%) while in the other districts, either the superintendent or the assistant superintendent did the screening, and (c) most principals took part in the interview process. However, in some districts, other personnel, such as the assistant superintendent or the personnel director were also present at the interviews.

These findings are a part of actual selection practices. Consequently, more questions and unknown factors remain unanswered. In this regard, a descriptive investigation of teacher selection practices should be undertaken to provide additional information. Furthermore, few studies have used theories and concepts (e.g., attraction-similarity theory, the theory of social distance, the theory of ratings, and the concept of fit) in selection research relative. These theoretical frameworks help identify relationships and cause-and-effect aspects of independent variables and dependent variables. Such research study will provide a theoretical contribution to the body of knowledge.

Regarding performance improvement, the effectiveness of selection training, focusing on interview and rating skills, as well as psychometric issues and ratings, has shown inconsistent results. HPT suggests that performance problems are composed of multiple causes, which indicate that training alone may not be as effective as expected. HRD interventions are designed to improve performance in various levels within an organization. Based on this notion, performance improvement interventions are provided. However, it is important to evaluate how well these interventions can bring about improvement. In addition, identifying independent variables and dependent variables will be another potential area for future research opportunity.

How the Research Contributes to New Knowledge in HRD

This paper is the first to provide an HRD intervention model for teacher selection. The framework focuses on the latest results in personnel research, particularly the concepts of person-job fit and person-organization fit, which are relatively new to in the workplace, and transfers the concepts to the public school system. This first attempt will increase a body of HRD knowledge and providing practical implications.

This paper focuses on the current state of teacher selection practices in schools for performance improvement of personnel administrators. A school, as an educational institution, is seen separately from any other organization. Therefore, it may not be considered as a type of organization with teachers as its human resources, where performance improvement of the organization and the individual can be expected. In this regard, this paper will contribute to increasing the body of teacher selection knowledge and practical implications for selection practices.

This discussion paper provides a comprehensive framework on selection improvement, bringing both theory and concepts into practice. Particularly, the interview, the most popular and the focal point of the selection process, is often used by school personnel administrators based on their experience, instead of being provided training with proper knowledge and skills. This may not always result in effective selection. In this regard, this paper provides insight into benefits of HRD interventions.

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Employment Retention and Advancement Among Post-Welfare Participants in Wisconsin: Insights from W-2 Agency Representatives and Employers

Mary V. Alfred
Larry G. Martin
University of Wisconsin-Milwaukee

This study investigated the expert views of agency staff who provide case management services within the Wisconsin Works (W-2) program and of employers who hire Low Income Workers With Family Responsibilities (LIWWFRs). W2 staff assessed W2 employment retention and advancement services and employers assessed their own and W2 agency services for LIWWFRs. W2 agencies and employers provide these services as strategic initiatives to counter-balance the barriers faced by W-2 participants and LIWWFRs in their quest for employment retention and advancement.

Keywords: Welfare-to-work, Wisconsin-Works, W-2

In 1996, Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), taking a major step to change the culture of welfare from a system of dependency to one of personal responsibility and self-sufficiency. However, even before PRWORA, many states were experimenting with creative welfare systems that would move recipients from the welfare rolls and into the workplace. Wisconsin was one of the first states to undertake the challenge, and early in 1998, it completed its transition from Aid to Families with Dependent Children (AFDC) to Wisconsin Works (W-2). With its "work first" philosophy, W-2 was aligned with the welfare reform legislation of 1996. Both programs imposed strict time limits on recipients and required all who were capable to obtain immediate employment. The mandate to caseworkers, therefore, was to move recipients to the workforce as quickly as possible, so as to decrease dependency on cash assistance.

As a result of these changes in the welfare policy and the positive labor market conditions during the welfare reform era, welfare caseloads have substantially decreased (Swartz, 2001). According to Brauner and Loprest (1999), from March 1994, which was the peak of welfare caseloads, to September 1998, the national caseload of welfare recipients decreased by 43 percent. Wisconsin's cash assistance caseload during this period, however, decreased by 89 percent, the highest in the nation. With its success in reducing the case load and assisting many recipients to obtain employment, Wisconsin is widely acknowledged as one of the first states to move recipients from a dependency on cash assistance to a perception of self-sufficiency, resulting from employment. While the data suggest an increase in workplace participation among former welfare recipients, there is emerging evidence that suggests that employment retention and advancement among post welfare participants are issues that need immediate attention in order to fully evaluate the success of welfare reform

Review of Related Literature

While retention and advancement have been identified as areas that need immediate attention, we have little empirical data on the extent of the problem in Wisconsin and the degree to which W-2 reform activities are successfully addressing the issues. Several studies have investigated the status of families who left welfare (Brauner & Loprest, 1999; Loprest, 1999); some evaluation studies have looked into education and training as vehicles for promoting economic self-sufficiency and human capital development (Bell, 2000; Cohen, 1998; Smith, 1999); and other studies have examined the low-wage job market and how welfare recipients are faring in such markets (Kelleen & Nightingale, 2000; Holzer & Stoll, 2000).

Studies that utilized data sources from Wisconsin have observed that as Wisconsin's economy has continued to expand, employers have found welfare recipients increasingly attractive as employees. Although most former recipients are concentrated in jobs in low-skilled and low-wage sectors, and nearly one-third of former recipients in Milwaukee work through temporary agencies (Corbett & Weber, 2000), employers have hired former recipients, who in years past would not have been considered for employment. A recent survey of 750 employers reported by Holzer (2000) compared Milwaukee to three other metropolitan areas: Los Angeles, Chicago, and Cleveland. The study found that the average duration of employment for newly hired recipients was 8 months, although significant percentages left after just 3-4 months. It also found that Milwaukee was at the high end of

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having jobs available and in the percent of jobs fielded by recipients. However, larger percentages reported problems with absenteeism, often related to child care and transportation problems. In addition, Holzer (2000) observed that Milwaukee experienced greater problems with turnover and job performance, which was interpreted as an indication that employers were digging deeper into the pool of welfare recipients in Milwaukee than elsewhere.

Post-welfare reform work-first policies have identified the issue of working poverty. The mean hourly wages for welfare recipients nationally range between $6.94 and $7.83, and the hours worked per week range from 34.0 to 35.2 (Holzer, 2000). In 1997 the average earnings was between $10,000 to $12,000.00; less than the poverty level for a family of three (Brauner and Loprest, 1999). The low wages, high turnover, and difficulty in finding and maintaining permanent jobs have translated into high levels of economic anxiety and worry among some former recipients (Kelleen & Nightingale, 2000). Rangarajan (1998) summarized the problems of employment retention and notes,

> While many welfare recipients who find jobs are able to keep them, a significant minority have a hard time holding onto jobs and lose them fairly quickly. . . . Many welfare recipients' reasons for losing a job are complicated. Most find low paying jobs but still have to deal with the standard costs associated with work (such as affordable child care and transportation). Many must cope with a reduction in other forms of social support (such as housing subsidies, and, perhaps, food stamps, and medical benefits). Nearly one in three work nonstandard hours, making childcare and transportation arrangements more complex. Because they have little work experience, many welfare recipients have unrealistic work expectations and walk out of their jobs when these expectations are not met. Many have little in the way of personal and social support and find the transition from welfare to work overwhelming and stressful. (p. 3)

Given the time-limited assistance and strict work participation requirements under W-2, Wisconsin policy makers and program administrators are realizing that a "work first" approach is not simply concerned with placing welfare recipients in entry-level jobs. It is also concerned with developing effective programs and strategies that will assist former working recipients to keep their jobs, avoid returning to welfare, and advance in the labor market. Therefore, Wisconsin has included elements of retention and advancement in the W-2 program since its inception, in the form of case management services to low-income working families. These efforts are primarily the domain of W-2 agencies and the staff, particularly Financial and Employment Planners (FEPs). For these unsubsidized participants, W-2 agency staff represent the lifeline of opportunities to state-supported services and programs that can potentially assist them to retain or advance in employment.

Another approach to retention and advancement services was added to Wisconsin's mix of TANF-funded programs in 2000 with the implementation of the Workforce Attachment and Advancement program (WAA). In addition to targeting families who are transitioning from W-2 to employment, WAA serves the general low-income working population, and it has an innovative employer services component. WAA providers have the flexibility to meet local employers' needs for skilled employees by developing and providing a broad range of job-specific training and skills development services, e.g., job skills training, mentoring, job coaching, and support services. The WAA program was implemented in late 2000, and is administered by both W-2 agencies and Workforce Development Boards (WDBs).

This study sought the perspectives of both W-2 agency representatives and employers in identifying the problems faced by post welfare recipients in the workplace and the problems and services that are effective in addressing these problems. Integrating the perspectives of employers provided a two pronged approach to understanding the issues regarding employment retention and advancement among low income workers with family responsibilities (LIWWFRs).

Purpose of the Study and Research Questions

In order to fully evaluate the success of Wisconsin's W-2 program in placing large segments of welfare recipients into employment, state policy makers, W-2 agencies, employers, and other stakeholders are compelled to address the twin issues of employment retention and advancement faced by former recipients. Results from several research and investigative reports (Governor's Wisconsin Works (W-2) Education and Training Committee report, 1998; The Lewin Group, 1999; Mills & Kazis, 1999) have suggested that moving recipients into the workforce is just one part of the solution to self-sufficiency. The conclusion drawn from many of these reports indicate that attention must be paid to the issues and problems that participants encounter as they make the transition from welfare and that strategies, solutions, and services must be put in place to address these problems and help participants retain employment and advance in the workplace. Therefore, this research project sought to map the terrain of problems and barriers to retention and advancement experienced by both unsubsidized participants and low income workers

with family responsibilities (LIWWFRs) and chart the array and effectiveness of services and programs provided to both populations by W-2 agencies and employers.

The following research questions were used to guide our investigation:

- How do W-2 agency and employer representatives describe the barriers that inhibit employment retention and advancement among W-2 participants (or low-income workers with family responsibilities)?
- To what extent do these barriers impair participants' ability to retain employment and advance in the workplace?
- What employment retention and advancement services and programs are provided by W-2 agencies and employers?
- To what extent do W-2 agency staff and employers believe that services provided are effective in promoting job retention and advancement among unsubsidized employed participants?

Research Design

The project employed a survey design for the collection of data. Telephone surveys were administered to appropriate W-2 agency representatives and employers. A "selection with probabilities proportional to size" (Jaeger, 1984) random sampling process was used to select the 76 Wisconsin Works (W-2) agencies that had at least one unsubsidized participant the year prior to the study. The agencies were stratefied into four groups: agencies with fewer than 10 cases, those with 11 to 80 cases, those with 81 to 500 cases, and those with over 500 cases. We took a 33 percent sample from each of these strata. From these agencies, the sample of 69 agency staff was identified. All of the agency staff responsible for placing or retaining unsubsidized employed participants from each selected site were targeted for interviews. In instances in which this responsibility was shared by the majority of case managers in an agency, about one-third of these individuals were asked to participate in the study. A total of 98 individuals were asked to participate in the study and 69 were interviewed, for a participation rate of seventy percent. Each interview ranged from fifteen to forty minutes.

Interviewees for the employer survey were identified via the contact persons from each W-2 agency. These individuals were asked to identify three employers with whom they had placed participants in the past year. A total of seventy-seven employers were contacted, and 41 (i.e., Human ResourcesDirectors, Managers, or Representatives; Staff Supervisors; and Personnel Specialists) were interviewed. Therefore the participation rate for employers was 53.25 percent. Each interview averaged about twenty minutes, but ranged from fifteen to forty minutes.

The data collection instruments were developed from several sources: existing Wisconsin Department of Workforce Development (DWD) and W-2 agency services and programs; services, programs, problems/issues and barriers identified by discussions with DWD agency personnel; a multi-state group of other state and local officials via a teleconference involving members of the Welfare Peer Assistance Network (WELPAN); and existing instruments that have been used in previous W-2 studies of FEPs and employers. Both instruments were pilot tested with three agency staff and three employers before the final instruments were employed in the study. Data from all telephone interviews were entered onto blank copies of the instrument and later transferred to an SPSS-PC data file.

Findings

Profile of W-2 Agency Staff, Employing Organizations, and Working W-2 Participants

The demographic profile of the sample suggests that the typical W-2 agency personnel responsible for sustaining participants in the workforce is an experienced, White female, with less than a BS degree. The sample was comprised of a broad range of small and large employers who have hired former welfare recipients and established a cooperative relationship with W-2 agencies. The typical employer in this sample employed between 100 and 249 workers (26 to 50 of these would be LIWWFRs); is located about a tenth of a mile from a transit stop; operates from multiple sites; recruits employees via news paper ads and state W-2 agencies; screens applicants via personal interviews and takes these seriously in the hiring process; does not require applicants to take tests; and hired between 11 and 100 employees during the past twelve months. These employers did not consider a high school diploma or pervious experience a necessary condition of employment, and only mildly preferred skills training or certification. They do require employees who have the ability to exercise personal initiative, use sound judgment, and demonstrate critical listening skills. They paid LIWWFRs a starting salary that ranged between $7.40 and $8.80 per hour. The majority of LIWWFRs hired by these employers were White women who work for forty or more hours per week and had some previous job experience. The majority of these employees work "fixed schedules," in non-seasonal jobs, and do not receive tips, commissions, or participate in profit sharing to supplement

their salaries. However, they do have access to company-sponsored health insurance. Qualitative data reveal that employees do not often participate in employer-sponsored health care programs because the high cost of these programs make them unaffordable to these low-income workers. The study also found that few of the low-income workers were promoted during the last two years, but most received raises in the past year.

The majority of W-2 agency staff indicated that either half or more than half of their unsubsidized participants had been separated from employment in the last year. Also, nearly two-thirds of them indicated that either half or more than half of their unsubsidized cases had been terminated from employment for "cause." The employers similarly experienced some turnover among LIWWFRs, with fewer than forty percent of employers retaining all or more than half of their LIWWFRs after two years. Employers indicated that about fifteen percent of those leaving their firms were terminated for cause. The high level of turnover among this group of workers suggests that there are serious barriers to their retention in the work place.

Employment Retention and Advancement Barriers

Unsubsidized participants face several significant barriers to their efforts to retain employment and advance in the workforce. The importance of barriers can be measured in the power of their inhibitory effect and in the number of participants affected. Each respondent rated (on a 5.0 point scale) the extent to which these barriers were problematic in participants' employment retention or advancement efforts and they rated (on a 5.0 point scale) the proportion of participants affected. These barriers were categorized as the following: Situational Barriers, Education and Learning Experience Barriers, Personal Issues, and Disabilities.

Situational Barriers. Of all four categories, situational barriers produced the highest collective mean score (4.00 on a 5.0 scale; indicating "quite problematic") in the order of their inhibitory effect. Situational barriers represented those survey items that addressed the extent to which participants experienced several possible situational problems that might inhibit their ability to maintain employment. These barriers include problems with child care, problems with transportation, housing instability, care for a child or adult with disabilities, and being victimized by crimes. In terms of the proportion of participants affected by these barriers, the items produced a collective mean score of 2.58 (on a 5.0 scale) which indicates that W-2 agency staff believed nearly one-half of the unsubsidized employed participants in their caseloads were affected by them..

Education and Learning Experience Barriers. Education and learning experience barriers represent the extent to which W-2 agency staff believed participants experienced employment barriers due to the absence of skills, attitudes and experiences assumed to be required in the workplace. This category received the second highest collective mean score of 3.69, on a 5.0 scale (indicating "quite problematic") in terms of inhibitory effect, and the highest mean score of 2.63 on a 5.0 scale, indicating about one-half of the participants are affected by these barriers. Verbal English language, written English language, math, and human interpersonal relationships skills, a lack of motivation to work, and being a non-English speaking immigrant were *Education and Learning Experience Barriers* that were found to inhibit retention and advancement in the workplace.

Personal Issues. The survey items categorized as personal issues represent those items which addressed participants' negative interpersonal interactions, behaviors, and actions that might pose impediments to their employment retention and advancement efforts. These items explored the issues of substance abuse, domestic abuse, and being charged with criminal behavior. Collectively, "personal issues" produced the third highest mean score of 3.63 on a 5.0 scale, indicating they were "quite problematic" in terms of inhibitory effect, and 2.45 on a 5.0 scale, indicating less than half of the participants are affectd by these barriers. Of the personal barriers identified, *Substance Abuse* was rated the highest (4.26 on a five point scale) indicating it was thought to be "quite problematic" and was perceived to affect about one-half of the participants served (2.68 on a 5 point scale). *Domestic Abuse (violence)* was also found to be quite problematic (a rating of 3.88) and affected close to one-half of the participants (a rating of 2.49). Being charged with a crime was was found to be somewhat problematic (a rating of 3.37) and affected less than half of the people served (a rating of 2.25). About one-forth of respondents indicated problems with personal issues affected either "about half or more than half" of their unsubsidized employed cases.

Disabilities. Three items explored the extent to which participants experienced the following types of disabilities: mental, learning, and physical. Problems with disabilities were found to affect less than one-half of unsubsidized employed participants (2.43 on a 5 point scale) and were found to produce the lowest collective mean score in terms of inhibitory effect (i.e., 3.55 on a 5.0 scale) indicating them to be somewhat to quite problematic. Agency staff perceived *Mental Disabilities* to be quite problematic (a rating of 3.86 on a five point scale) and were thought to affect about half of the participants served. Learning disabilities were also found to be quite problematic (a mean rating of 3.61) and affected over one-half of the caseload. *Physical Disabilities* were also found to be somewhat problematic (a rating of 3.25) and affected less than half of the employed participants.

W-2 Agency Employment and Advancement Services, their Effectiveness, and Proportion Discussed

Agency representatives were queried on the types of services they provide to participants and the effectivesness of these services in addressing the problems that impede employment retention and advancement among post-welfare recipients. They were asked to respond to three sets of questions regarding their agencies delivery of these services. First, did the agency provide these services? Second, those with affirmative responses to individual items were asked to rate on a five-point Likert scale (1 = none to 5 = all) with what proportion of participants they spent time discussing each of the services. Third, they were asked to rate on a five-point Likert scale (1= not at all to 5 = very much) the extent to which they throught each service was effective. Four categories of services and programs were identified: Support Services, Educational and Learning Programs, Employer Intervention Services, and Counseling Services.

Support Services. Support services comprised of eight services that form the core of the safety net provided directly by W-2 agencies and include child care assistance, job loans, placement services, food stamps, transportation assistance, medicaid, emergency assistance, and job retention bonuses. All W-2 agencies are legally required to provide *Child Care Assistance*. Therefore, all (100%) of the staff interviewed indicated this service is available through their W-2 agencies. Similarly, nearly all of the respondents (i.e., 99%) indicated their agencies provided both *Job* Access *Loans* and *Placement Services*. An equal number of respondents (i.e., 96%) indicated their agencies provided *Food Stamps*, some form of *Transportation Assistance*, and health care assistance via *Medicaid* and/or *BadgerCare*. About ninty-three percent of respondents indicated that *Emergency Assistance* was provided, and fewer than half (46%) indicated that *Job Retention Bonuses* (or rewards) were provided to participants.

Collectively, these support services received the highest effectiveness ratings (i.e., 3.81 on a 5 point scale), indicating that they were quite effective in assisting unsubsidized employed participants to retain employment and advance in their jobs. They were also the highest rated (3.92 on a 5 point scale) in term of the proportion of participants with whom staff members discussed the availability of these services. Child care assistance was rated the most effective (4.52 on a 5 point scale) indicating it was perceived as a valuable resource in employment retention and advancement among post-welfare employed recipients. Transportation assistance (with a rating of 4.14), medicaid (with a rating of 4.12), placement services (with a rating of 3.64), and food stamps (with a rating of 3.55) were all perceived to be "quite effective. The remaining support services, i.e., job loans (3.44), emergency assistance (3.32), and job retention rewards or bonuses (3.23), were perceived to be somewhat effective.

Educational and Learning Programs. This category was comprised of five types of educational programs that are provided directly by W-2 agencies or provided by contract agencies. These included Soft Skills Training, Employment Skills Training, Educational Programs (e.g., GED, basic skills, ESL, etc.), Financial Assistance for Postsecondary Education, and Mentoring Programs for participants. *Soft Skills Training* was rated as the most frequently offered (i.e., 94.2%) educational program provided by W-2 agencies. However, both *Employment Skills Training* and *Educational Programs* were rated as a tie for second by 81 percent of respondents. *Financial Assistance for Postsecondary Education* (FAPSE) was rated by 68 percent of respondents as being offered by their agencies, and fifty-five percent of the respondents indicated their W-2 agencies offer *Mentoring Programs*. *Training Completion Bonuses* were provided by the smallest number of providers, i.e., 8 (or 12%).

Collectively, these educational and learning programs and services received the second highest effectiveness ratings (i.e., 3.57 on a 5 point scale) indicating that they were quite effective in keeping post-welfare recipients in the workplace. They were also found to be discussed with at least one-half of the participants served. Employment skills training (with a mean rating of 3.91), educational programs (with a mean rating of 3.76), soft skills training (with a mean rating of 3.60), and financial assistance for postsecondary education (with a mean rating of 3.55) were all perceived to be "quite effective" in assisting employed unsubsidized participants to retain employment and advance in their jobs. In contrast, mentoring programs (with a mean rating of 3.19) and training bounses to participants (with a mean rating of 3.00) were perceived to be somewhat effective.

Employer Intervention Services. This research queried eight types of employer intervention services and activities that are provided under the Workforce Attachment and Advancement (WAA) program and provided directly by W-2 agencies. These activities are directed at the employer, to provide on-site interventions with the employer on behalf of low-income workers and to facilitate the resolution of job retention and advancement barriers. Employers indicated the following intervention services and activities are provided by W-2 agencies: assistance with placement, assistance with work-site mentoring, training assistance, assistance with needs, outreach and marketing assistance, upward mobility programs, and payment for workshop attendance.

A total of 78 percent of the W-2 staff indicated *Employer Assistance With Placement* was provided by their W-2 agencies, and 71 percent indicated *Employer Assistance With Work Site Mentoring and Coaching* was provided.

About two-thirds of respondents indicated both *Training Programs for Employers* and *Employer Assistance With Assessing Training Needs* were provided by their W-2 agencies, whereas, about 61 percent of staff indicated *Outreach and Marketing Programs for Employers* were provided. Similar proportions (i.e., 55% and 54%) of staff indicated their W-2 agencies provided respectively *Employer Assistance With Developing Training Programs* and *Employer Assistance With Upward Mobility Programs*. *Employer Subsidized Workshops* were only indicated by 5.8 percent of the respondents to be provided by their W-2 agencies.

Collectively, these services received the third highest effectiveness ratings (i.e., 3.50 on a 5 point scale) which suggest that they are quite effective in employment retention . These services included outreach and marketing (with a rating of 3.86), employer subsidized workshops (with a rating of 3.67), assistance with needs assessment (with a rating of 3.63), placement assistance (with a rating of 3.55), assistance with mentoring programs (with a rating of 3.55), and providing training assistance to employers (with a rating of 3.55) were all rated in the "quite effective range. The remaining services, upward mobility programs (3.44) and training programs targeting employers (3.26) were rated in the "somewhat effective" range.

Counseling Services. This category was comprised of seven types of counseling and assistive services that are provided directly by W-2 agencies or provided by contract agencies that allow for a seamless service experience for participants. Between ninety-four and thirty-seven percent of respondents indicated the following counseling services are provided by W-2 agencies: job counseling during employment, job counseling before employment, financial counseling, mental health counseling, substance abuse services, family planning, and crisis hotline. *Employment Counseling During Employment* was the most frequently offered counseling service being provided by W-2 agencies. Ninety-four percent of respondents indicated this service was offered by their agency. *Employment Counseling Before Employment* and *Financial Counseling* were perceived by 86 and 83 percent of respondents respectively to be offered in their agencies. *Mental Health Counseling* was indicated to be offered sixty-six percent of respondents' agencies, and *Substance Abuse Counseling* was thought to be offered less frequently than the above counseling services (i.e., only 59% of respondents indicated it was offered in their agencies). *Family Planning* was perceived by 47 percent of respondents as being offered in their agencies, and *Crisis Hotlines* were perceived by only 37 percent of respondents as being offered.

Collectively, counseling services received the fourth highest effectiveness ratings (i.e., 3.30 on a 5 point scale) indicating that they were somewhat effective in promoting employment retention and advancement among post-welfare recipients. This category of services also received a rating of 3.33 (on a 5-point scale) in terms of the proportion of participants with whom they were duscussed. Job counseling both before (with a rating of 3.63) and during (with a rating of 3.60) employment were thought to be "quite effective". The remaining services were rated in the "somewhat effectiv" range. These included substance abuse assistance (3.38), financial counseling (3.33), mental health counseling (3.11), crisis hotline (2.9), and family planning (2.52). Similarly, job counseling both before (with a rating of 3.95) and during (with a rating of 3.72) employment were discussed with more than one-half of participants. The other counseling services (substance abuse, 3.03; financial counseling, 3.49; mental health counseling, 2.98; crisis hotline, 3.13; and family planning. 3.6) were discussed with about one-half of unsubsidized employed participants.

Employer Perceived Problems and Barriers of LIWWFRs

Employers were asked to compare Low-Income Workers With Family Responsibilities (LIWWFRs) to all other employees and rate (on a four point scale, with 1=not likely at all and 4=very much likely) the extent to which they are less likely or more likely to experience four categories of problems identified by the agency representatives: situational problems, educational and learning problems, personal issues, and disabilities.

Education and Learning Experience Problems. This category identified the extent to which employers believed LIWWFRs experienced employment-based problems (as compared to other workers) due to the absence of skills, attitudes, and experiences assumed to be required in the workplace. The most serious educational problems tended to be those associated with basic skills, i.e., weak written and verbal English skills, reading and math skills were all rated in the range of 2.54 to 3.08 indicating LIWWFRs were "a little more likely" to experience these problems than other workers. Poor interpersonal skills and work attitudes, and problems either not attending training or failure to apply training knowledge were rated in the range of 1.65 to 2.36 indicating LIWWFRs were "a little likely" to experience such problems.

Personal Issues. This category is comprised of statements that deal with the perceived personal conduct of employees. Six items gauged the extent LIWWFRs experienced problems with personal issues: absenteeism or tardiness, illness, domestic abuse, charged with criminal behavior, and substance abuse. Collectively, this category received the second highest mean rating from employers, i.e., 2.34 on a four point scale, indicating these problems

were "a little likely" to be experienced by LIWWFRs as compared to other workers. Absenteeism, tardiness and problems with illness were considered to be the most serious personal issues that this group of workers experience.

Situational Problems. This category identified the extent to which employers believed LIWWFRs experienced employment-based problems due to their contextual circumstances. Several items were addressed: problems with child care, problems with transportation, housing instability, and caring for one or more persons with disabilities. Collectively, this category of items received the third highest rating from employers, i.e., a mean of 2.30 on a 4 point scale, indicating LIWWFRs were "a little likely" to experience these problems when compared to other workers. The problems with both child care and transportation were rated by employers to be the most serious of the situational problems faced by these workers.

Disabilities Among LIWWFRs. Three items gauged the extent to which LIWWFRs were perceived to experience problems with disabilities: learning, mental, and physical. Collectively, this category received the lowest mean rating from employers, i.e., 1.73 on a four point scale, indicating these problems were "a little likely" to be experienced by LIWWFRs as compared to other workers. Both learning and mental disabilities received mean ratings of 2.06 and 1.63 respectively (on a 4 point scale), indicating they were "a little likely" to be experienced. Physical disabilities received the lowest rating, i.e., 1.44, indicating they were not likely to be experienced.

Employer Retention and Advancement Services and their Effectiveness

Employers were asked to address several items that queried the types of educational programs and support services that they either provide or to which they provide access for LIWWFRs. From these individual items, several categories of programs and services were organized. These include employment-based educational programs, counseling and support services, and W-2 agency assistance to employers. The two most frequently identified *employment based educational programs* were employment skills, which were offered by 90.2% and assistance with post secondary education, which was offered by 75.6% of respondents. Other programs identified included mentoring (39%), basic skills (34%), math (22%), basic English classes (22%), and basic writing (15%). Collectively, these programs were found to be the most effective of the employer sponsored programs (3.45 on a 5-point scale) in helping LIWWFRs to retain employment and to advance in their jobs. They were also the highest rated (3.40 on a 5-point scale) in terms of the proportion of LIWWFRs who participated in them.

Employers identified several types of *counseling and support services* that their organizations provide. The most readily accessible service is substance abuse assistance which is offered by 60 percent of the employers surveyed. Nearly one-fourth of the employers offer transportation assistance and fewer than 10 offer on-site child care or child care subsidy. From their perspective, these services were rated second in terms of their effectiveness in promoting employee retention and advancement. Of these services, on-site child care was the highest rated service in terms of effectiveness. However, that service was found to be the least offered among the employers .

The employers were asked to comment on the extent to which they utilize the *employer assistance services provided by the W-2 agencies*. The most popular service utilized is placement assistance, which is used by 48 percent of the employers surveyed. Between 20 and 25 percent utilize employer training, work site mentoring and needs assessment assistance. Only about ten percent use assistance with developing educational programs, while fewer than five percent were assisted with upward mobility programs. The effectiveness of employer-based services provided by W-2 agencies received a man rating of 3.04 (on a five-point scale where 1 = not at all to 5 = very effective) indicating that these services were somewhat effective. Employers rated these services third in terms of their effectiveness in promoting employment retention and advancement. Interestingly, however, although not utilized by many employers, worksite mentoring and job coaching programs were thought to be the most effective of services provided by W-2 agencies. They received a rating of 3.56, indicating they were quite effective.

Conclusions and Recommendations

This study investigated the extent to which unsubsidized former welfare recipients who were still under case management with W-2 agencies experienced barriers in their efforts to retain employment and advance in the workforce. Additionally, we explored the types of services and programs W-2 agencies made available as strategic initiatives to counter-balance the barriers faced by participants. A third element of the study was to investigate the perspectives of employers regarding the workplace barriers and retention and advancement strategies they employed to promote the retention and advancement of Low Income Workers With Family Responsibilities (LIWWFRs). Several patterns emerged from the two data sources.

W-2 employed participants, a subset of LIWWFRs, face several significant barriers to their efforts to retain employment and advance in the workforce. W-2 staff and employers both felt that the barriers of child care and transportation problems and poor math and written English skills inhibit the ability of unsubsidized participants and

LIWWFRs to retain employment and advancement in the workforce. Because of the low academic skills requirement of employers for rmany of the jobs performed by this group of workers, it was found that many participants could qualify for low income, entry-level jobs. However, the skills requirement necessary for advancing in the workplace suggests that many of them could benefit from a variety of training and educational opportunities. The fixed schedules of many of the LIWWFRs would allow these individuals to schedule either employment-based or other continuing education programs that could improve their academic qualifications. W-2 agencies should try to develop more collaborative relationships with employers and other program providers in addressing these barriers. For example, a variety of context-based workplace literacy programs could be arranged via cooperative arrangements with individual employers, literacy program providers, and W-2 agencies.

Employers and W-2 agency staff have a high level of confidence in mentoring programs, especially worksite mentoring. Seventy-one percent of agency staff provide the service to employers and rated it as quite effective. Similarly, employers also rated that service to be quite effective. However, only 22 percent of employers participated in these programs. Given the level of confidence expressed by both employers and W-2 agency staff in the effectiveness of worksite mentoring and coaching, these programs should be expanded to a much broader range of employers. The prospect of making WAA programs more available to employers and assisting them with basic skills training should be pursued by W-2 agencies. Also, because of the confidence in the effectiveness of on-site child care and childcare subsidy in employment retention, we recommend that there should be an investigation to determine how these programs could be effectively expanded to increase numbers of employers.

This research is significant to the field of HRD as it provides employers and HRD professionals with insights into the barriers that inhibit employment retention and advancement of low-income workers with family responsibilities in the workplace and the services that are perceived to be effective in combating these problems. With this knowledge, organizational leaders and those responsible for training and development can plan and implement programs and services to increase the retention and advancement rate among this group of workers.

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Multi-Source Feedback Appraisal In Two Types Of Organizational Structures: How Self, Supervisor and Other Ratings Differ

Karen K. Yarrish
Keystone College

Judith A. Kolb
Pennsylvania State University

The purpose of this study was to investigate the differences in a multi-source feedback appraisal between employee evaluation ratings of self, supervisor, and other in two different types of organizational structures. One hundred and eighteen nurse aides participated in the study. The findings indicate greater variability in the ratings of the group in which ratees work off-site.

Keywords: Performance Appraisal, Performance Feedback, Self-Evaluation

It has been clear for many years that performance appraisals don't live up to expectations. They are not supported by top management, supervisors don't like doing them, and employees don't like having them done. Research suggests that supervisors don't like doing performance evaluations because they find it distasteful to criticize subordinates, they aren't trained to conduct performance evaluations, and they don't trust the validity of the evaluation instrument (Beer & Ruh, 1990; McGregor 1990). Supervisors, in general, prefer to deliver positive performance ratings. (Herold & Parsons, 1985; Judge & Ferris, 1993).

Another factor in the continuing dissatisfaction with performance appraisal is the changing nature of jobs and organizations. In the past 10 years, there has been a decided shift in the structure of organizations (Waldman & Atwater, 1998). Greater emphasis is being placed on decentralization, downsizing, teams, and telecommuting. The current workforce is organized differently and is not always even located geographically together (Buhler, 1997). This change impacts the degree of close supervision and the development of the relationship between the ratee and the rater in the performance appraisal process. These differences in the U.S. workforce have created enormous challenges to management and to HR/HRD professionals who are responsible for developing, implementing, and assessing systems to measure performance and provide feedback to employees at all levels and locations.

These new types of working environments are referred to as "loosely coupled" (Weick, 1976). Such systems contain parts that are related to each other but still retain their individual identity and logical or physical separateness. A tightly coupled system is the traditional work situation in which a supervisor works closely with subordinates and supervises their work on a regular basis.

The traditional hierarchical performance appraisal system is not viewed as effective and does not favor the current work environment (Waldman & Atwater, 1998). Because of the continued level of dissatisfaction with performance appraisal and the fact that jobs have greater responsibility, more flexibility, and less direct supervision, organizations have moved toward using alternatives to the traditional, hierarchic, supervisor-controlled performance evaluation process. One such alternative is a multiple source or 360-degree performance appraisal process (Milliman, Zawacki, Norman, Powell, & Kirksey, 1994; Tornow, 1993). Whereas traditional performance evaluation systems provide feedback only from the employee's supervisor, 360-degree systems also include feedback from peers, subordinates, and customers. Each of these sources provides relevant, and slightly different, information that is valuable to the employee (Borman, 1991; Hazucha, Hezlett, & Schneider, 1993).

Several researchers (Church & Bracken, 1997; Funderburg & Levy, 1997; Lawler, 1967; London & Smither 1995; London, Smither & Adsit, 1997; Salam, Cox, & Sims, 1997; Tornow, 1993; Waldman, 1997; Westerman & Rosse, 1997) have examined variables related to multi-source/360-degree feedback including such issues as accountability, perceptions, and rater attitudes. Additional studies have been conducted to examine ratee acceptance of various forms of performance appraisals (Albright & Levy, 1995; Bernardin & Buckley, 1979; Bernardin, Dahmus & Redmon 1993; Gosselin, Werner & Halle 1997; Robinson, Fink, & Allen, 1996).

This focus on ratee acceptance has its genesis in the work of early motivational researchers such as Herzerg (1959) and Lickert (1967), who found that employee recognition, achievement, and employee satisifaction in decision making all led to increased levels of motivation and satisfaction in employees.

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As organizations increasingly turn to multi-source or 360-degree performance evaluation processes as a means of improving the process, interest becomes focused on how the ratings among self, supervisor, and other may differ. With the exception of studies examining manager/subordinate agreement in leadership competency ratings (Atwater, Roush, & Fischthal, 1995; Smither, London, et al., 1995; Waldman & Atwater, 2001), little research has been conducted in this area.

Self-Appraisal

A number of studies have examined the self-appraisal piece of the multi-source or 360-degree performance appraisal process. These studies have concluded that self raters with higher self-esteem rated themselves with greater leniency than did those raters with low self-esteem (Farh & Dobbins, 1989), self rater appraisals are significantly related to appraisals from co-workers and are less influenced by the halo effect than appraisals from outside raters, (Fox & Dinur, 1988), self rater appraisals produce significantly lesser leniency error and more congruent ratings with supervisors when instructions referencing supervisory feedback are used (Steel & Ovalle, 1984), self raters differ significantly from others in their evaluation of communication behavior (Sypher & Sypher, 1984), and self raters in comparison to the other raters show greater leniency bias and less variability while exhibiting less of the halo effect (Thornton, 1980). There is a greater difference between ratings of supervisors and self than between ratings of co-workers and supervisors (Harris & Schaubroeck, 1988), and research continues to be conducted in the areas of biases and validity of self-appraisal of job performance and biases of self evaluation (Thornton, 1980).

Self-ratings of performance often differ from performance ratings by external evaluators (Fox & Dunur, 1988; Thornton, 1980). Self-appraisals of performance tend to be more lenient, more biased, and less variable than superior, peer, or subordinate appraisals (Thornton, 1980). Harris and Schaubroech (1988) reported only moderate correlations between self-ratings by employees and ratings by others.

> Self –assessments serve a variety of purposes. Participating in the appraisal process may make one more self-aware, more accepting of feedback, and more committed to goals and performance improvement. Also, an individual may be the only one who fully understands the forces operating to influence his or her behavior (Kolb, 1995, p.234).

However, little research has examined correlation between self and others in different types of organizational structures. Given the popularity of multi-source appraisal systems and the variety of ways in which today's organizations are organized, it seems important to collect data in different types of organizational structures. The study described here investigates the differences that exist between employee evaluation ratings of self, supervisor, and other in both tightly coupled and loosely coupled environments.

Research Question

What differences exist between employee evaluation ratings of self, supervisor, and other in tightly coupled environments and employee evaluation ratings of same in loosely coupled environments?

Methodology

Sample

Sixty-one home health care aides and 57 nurse aides from a 2200-person allied health facility located in northeastern Pennsylvania participated in this survey. The home health care aides, who are not closely supervised, represented the loosely coupled structure; the nurse aides, who receive direct supervision, represented the tightly coupled structure. The majority of the participants were in the 33 to 62 years of age category and had a high school/GED level of education. The participants had a mean of 7.46 years at their current position and a mean of 6.6 years employed by the allied health facility. There were no significant differences in demographic characteristics between the two groups.

Procedures

Raters' responses were compared to the evaluation of the ratee. Data were collected using a performance appraisal form that was developed by a focus group made up of the Vice President of Human Resources, the supervisors of both the tightly coupled and loosely coupled groups, a representative employee from each of the

groups, and the researcher. The two groups, loosely coupled and tightly coupled, participated in a multi-source performance appraisal process evaluating themselves and others in their department. The newly developed performance appraisal form used was developed by using a set of behavioral criteria developed specifically to meet the objectives and goals of the allied health facility. These behavioral criteria were directly linked to the individual's job description. Each employee participating in the research was trained on the procedures to use in providing and receiving feedback. Each ratee was evaluated by self, supervisor, and one other person familiar with his or her work. After participating, each ratee received feedback for each performance criteria evaluated. Ratees could not conduct reciprocal appraisals. This rule was established to rule out the bargaining of exchanging good evaluations between the two individuals.

Data were collected from the performance rating forms used by the participants in the study. The ratings from each of the various categories, self, supervisor, and other were sorted and analyzed.

Surveys

Data were collected using a Likert-style performance appraisal form. The behavioral criteria were directly linked to the individual's job description. Examples of sample criteria include: Demonstrates good judgment in all phases of work, Shows initiative by helping others when slow, Attends in-service education and reads reports, and Reports to work on time. Each employee participating in the research was trained on the procedures to use in providing and receiving feedback.

Focus groups

Information regarding the development of the performance appraisal instrument was collected in small focus groups. These focus groups were made up of the supervisors of both sets of employees being surveyed, the VP of Human Resources, one employee from each group, and the researcher. The purpose of the group was to develop an effective performance evaluation tool. Involving participants in the creation of a performance management system increases the likelihood of acceptance of the system (Mohrman, Resnick-West, & Lawler, 1990).

Limitations

The sample used in this study was representative of only one type of loosely coupled and one type of tightly coupled system in an allied health organization. Caution needs to be exercised in generalizing the results of this study to other organizations. Also, subjects in this study were in non-exempt or non-managerial positions. Data collected on managerial-level employees may yield different results.

Because the participants in this study worked in two different structures, their job titles and job duties were slightly different. This resulted in the use of different performance evaluation forms; however, both groups' forms were developed by the same focus group with input from supervisors and representatives from both the loosely coupled and the tightly coupled groups.

Results and Findings

Paired t-test results for each of the headings-self/supervisor, self/other, supervisor/other-for the tightly coupled group are presented in Table 1.

Table 1. *Differences in Ratings Between Self/Supervisor, Self/Other, Supervisor/Other in Tightly Coupled Group*

Self/Supervisor	M	SD	M	SD	M	SD	n	t Value
Question 1	3.66	0.48	3.68	0.47			53	-0.24
Question 2	3.40	0.66	3.43	0.64			53	-0.47
Question 3	3.57	0.50	3.59	0.54			51	-0.22
Question 4	3.61	0.49	3.61	0.49			51	0
Question 5	3.70	0.46	3.56	0.50			54	2.06
Question 6	3.52	0.58	3.31	0.54			52	1.97
Question 7	3.68	0.47	3.45	0.50			53	2.58
Question 8	3.45	0.71	3.52	0.55			42	-0.62
Question 9	3.73	0.45	3.63	0.49			52	1.3
Question 10	3.72	0.45	3.36	0.48			53	4.41***
Question 11	3.51	0.50	3.43	0.50			51	1.07
Question 12	3.65	0.48	3.63	0.49			54	0.23
Question 13	3.73	0.45	3.71	0.50			52	0.24
Question 14	3.65	0.48	3.63	0.49			48	0.23
Question 15	3.69	0.47	3.63	0.49			54	0.68
Question 16	3.63	0.49	3.72	0.45			54	-1.15
Self/Other								
Question 1	3.65	0.48			3.73	0.53	51	-0.85
Question 2	3.41	0.67			3.67	0.52	49	-2.45
Question 3	3.57	0.50			3.61	0.49	51	-0.4
Question 4	3.61	0.49			3.71	0.54	51	-1
Question 5	3.70	0.46			3.68	0.51	53	0.26
Question 6	3.54	0.58			3.48	0.54	50	0.72
Question 7	3.67	0.40			3.58	0.50	52	1.15
Question 8	3.45	0.71			3.52	0.55	46	-1.53
Question 9	3.74	0.45			3.75	0.43	53	-0.26
Question 10	3.73	0.45			3.54	0.54	52	2.21
Question 11	3.51	0.50			3.57	0.50	51	-0.72
Question 12	3.66	0.48			3.72	0.50	53	-0.65
Question 13	3.73	0.45			3.61	0.49	51	1.43
Question 14	3.66	0.48			3.79	0.41	47	-1.43
Question 15	3.69	0.47			3.69	0.51	54	0
Question 16	3.63	0.49			3.70	0.50	54	-0.85

Table 1 (Continued)

Question 1	3.69	0.47	3.73	0.53	51	-0.5
Question 2	3.47	0.62	3.67	0.52	49	-2.22
Question 3	3.57	0.54	3.61	0.49	51	-0.5
Question 4	3.63	0.49	3.69	0.55	51	-0.72
Question 5	3.57	0.50	3.68	0.51	53	-1.35
Question 6	3.33	0.55	3.46	0.54	52	-1.22
Question 7	3.43	0.50	3.58	0.50	53	-1.74
Question 8	3.52	0.55	3.60	0.54	42	-0.68
Question 9	3.63	0.49	3.75	0.44	42	-1.35
Question 10	3.36	0.49	3.55	0.54	42	-2.02
Question 11	3.41	0.53	3.56	0.50	42	-1.83
Question 12	3.64	0.48	3.72	0.50	42	-0.94
Question 13	3.72	0.50	3.60	0.49	42	1.63
Question 14	3.64	0.49	3.79	0.41	42	-1.63
Question 15	3.63	0.49	3.69	0.51	54	-0.65
Question 16	3.72	0.45	3.70	0.50	54	0.23

***p< .001.

Only question 10, self/supervisor had a significant difference.

Paired ttest results for self/supervisor, self/other, and supervisor/other for the loosely coupled group are presented in Table 2.

Table 2. *Differences In Ratings Between Self/Supervisor, Self/Other, and Supervisor/Other in Loosely Coupled*

Question 2	3.64	0.49	3.24	0.48			42	4.18**
Question 3	3.32	0.62	2.95	0.52			38	3.37**
Question 4	2.95	0.87	2.95	0.65			43	0
Question 5	3.64	0.49	3.12	0.63			42	5.36***
Question 6	3.49	0.55	3.26	0.73			43	1.81
Question 7	3.65	0.53	3.37	0.69			43	2.39
Question 8	3.71	0.46	3.40	0.59			42	2.80**
Self/Other								
Question 1	3.72	0.45			3.93	0.26	29	-2.27
Question 2	3.77	0.43			3.83	0.38	30	-0.70
Question 3	3.38	0.65			3.63	0.58	24	-1.81
Question 4	3.20	0.77			3.67	0.48	15	-2.17
Question 5	3.68	0.48			3.87	0.34	31	-2.26
Question 6	3.56	0.50			3.91	0.29	34	-3.78**
Question 7	3.81	0.40			3.94	0.25	31	-1.44
Question 8	3.79	0.41			3.94	0.24	34	-1.97
Supervisor/Other								
Question 1			3.46	0.51	3.91	0.28	35	-4.43***
Question 2			3.27	0.51	3.81	0.40	37	-4.76***
Question 3			3.03	0.59	3.64	0.55	33	-4.42**
Question 4			3.00	0.75	3.68	0.48	19	-3.37**
Question 5			3.13	0.66	3.85	0.37	39	-5.91**
Question 6			3.29	0.64	3.88	0.33	41	-4.84***
Question 7			3.42	0.60	3.92	0.28	36	-4.58***
Question 8			3.41	0.59	3.59	0.30	41	-4.62***

**p< .01, *** p<.001

There were significant differences in a total of thirteen questions for the loosely coupled group: four in self/supervisor, one in self/other, and eight in supervisor/other.

Conclusions and Recommendations

There were no significant differences in the tightly coupled group in the categories of self/other and supervisor/other, indicating agreement between the ratings of the ratee and others and the supervisor and others. There was only one significant difference in the category of self/supervisor, indicating that overall the ratee agreed with the rating of his/her supervisor. This is somewhat surprising considering that self-ratings, in general, tend to be higher than ratings by others. This shared perception of employee performance in the tightly coupled group is encouraging and deserves further study.

There were thirteen significant differences in the loosely coupled group: four in self/supervisor, one in self/other, and eight in supervisor/other. These results suggest that, in loosely coupled groups, the physical distance between an employee and his/her supervisor might result in less supervisor awareness of employee performance. Multi-rater feedback might be particularly useful in situations in which employees work offsite.

Implications for HRD

Organizations are continually searching for improved methods of providing performance feedback. In addition, today's rapidly changing organizational environment requires HRD professionals to develop systems that address the increased distance between supervisors and their direct reports. Because organizational structures have been changing so quickly, organizations have had a difficult time trying to provide accurate feedback to employees in a format that is accurate and helpful to the ratee. An important finding in this study was that individuals in a loosely coupled system did not always agree with the ratings of their supervisors and that supervisors ratings were not consistent with the other raters evaluating the performance of the ratee. This finding supports the use of multi-source or 360-degree performance evaluation systems in this type of organizational structure.

Another important finding in this study was that the tightly coupled group's results indicate a fairly consistent level of agreement with the ratings of the supervisor. Supervisors contemplating the use of multi-source feedback systems have expressed concerns about inconsistency of ratings. (Yarrish & Kolb, 2001). As this study reports, greater inconsistency was found among ratings in the loosely coupled group. Further studies are needed to determine whether this finding is replicated in other samples and, if so, implications for the use of multi-rater systems.

As more organizations continue to move away from the traditional hierarchical structure, more information is needed on finding cost-effective methods of providing valuable performance feedback to employees. Studies conducted in organizations regarding the effectiveness of various feedback processes would be useful for HRD professionals facing decisions on the choice and implementation of such systems. Continued empirical studies should provide information helpful to organizations facing important and expensive performance feedback systems decisions.

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Career Related Competencies

Marinka A.C.T. Kuijpers
University of Twente, The Netherlands

This study will outline the changing nature of careers in the workplace, and trace the development of an instrument for identifying and measuring competencies for goal and value achievement. The relationship between competencies, personal factors, and career success has been studied amongst 1584 employees (51,5 % response) in 16 Dutch companies. The outcome of this analysis will be presented.

Keywords: Career Development, Career Development Competencies, Career Actualization

In research and practice of Human Resource Development there is a growing emphasis on the personal responsibility of the employee for his or her career development. This is related to the idea that careers are becoming more unpredictable and boundary less (Defillippi. & Arthur, 1996). This results into the question which competencies are required to reach goals and values in the career. In this paper results are presented on the following research questions:

- Which competencies for career development can be distinguished?
- What is the relation between career development and the personal factors (gender, career phase and position)?
- What is the correlation between career development and career success?

This study is part of a PhD project about a career development model.

Career Development and its Competencies: Some Theoretical Foundations

It seems that you can not read an article, paper or dissertation on Human Resource Development which doesn't elaborate on the changes of labor and labor market, and its consequences. These changes mark the transition from the industrial to the post-industrial society (Meijers, 1995) and have resulted in the knowledge economy, that can be characterized by increasing market forces, innovation, career mobility and competition for which fast and permanent learning is essential (Thijssen, 1995). Careers have become more unpredictable and boundary less (Defillippi. & Arthur, 1996). Because of this development, in the last decade the career of a person's professional life has been emphasized. Hall & Mirvis (1995) state that in the past mainly the employers felt responsible for the career development of the employee, but that 'career ownership' defines a new meaning in the future, because organizations will not be able to meaningfully plan a person's career due to developmental sequences. This means that the individual is on his own in career development.

Career development can be understood in two ways (dictionary on development):

- as the magnitude of achieved growth; development of the career in time (consecutive jobs and education), a career path;
- as a process to accomplish growth; in the way of exert influence on one's career path.

This study about career related competencies aims at the process of career development by the individual employee. Career development in this way is not a onetime choice for a profession or job, but a continuing process to realize goals and values in work within the possibilities of and in dialogue with the environment. In this study the word career actualization is introduced. Career actualization results in taking initiatives for and acquisition of work experiences, learning experiences and network contacts based on present and developing capacities and motivation within the possibilities of the environment.

Obviously career paths are influenced by many external factors, like labor market opportunities and professional and private circumstances (Onstenk 1995; Kidd, 1996). Furthermore, personal factors like gender, previous education and age are proven to effect the way career paths develop (Nijhof, Mulder & Streumer, 1994; Woodd, 2000). Whether or not one's career path and therefore career success can be influenced by competencies needs to be examined.

Although quite some research has been performed on (factor related to) de development of career paths (see Meijers, 1995), there is little empirical based insight on ability and behavior to exert influence on one's career development.

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In literature three kinds of competencies are mentioned to be related to the development of employees' career paths:

- Working competencies: competencies to perform in a specific work -situation or competencies for different work situations in different time periods (Onstenk, 1998; Thijssen 1997);
- Learning competencies: competencies to develop working competencies (Kessels, 1998; Thijssen, 1997; Min OC&W, 1997);
- Career related competencies: competencies to manage working and learning competencies within the personal career path. Career related competencies would be important for goal-centered career development. (Meijers, 1998; Thijssen, 1997; Carson, 1995; Hall & Mirvis 1995).

Working competencies, learning competencies as well as career related competencies affect the course of the career path. They act upon possibilities and impediments a person meets during his or her career. From the perspective that a certain extent of self control in the career is possible or even recommendable, work exceeding competencies could be of importance to develop and apply effective working competencies. These competencies are called career related competencies

In this paper career related competencies will be interpreted as clusters of ability, behavior and motivation related to a specific subject of career actualization. Career related competencies can be distinguished from working competencies because they exceed the level of specific work, they are meta competencies. A 'boundary less career' requires according tot Carson (1995) meta skills instead of job related competencies to select and accept in different settings. Meijers (1998) assumes that the core of the employability is not formed through specialized knowledge, but through the competency of getting insight of personal live values and work that fits these values.
Results of literature survey indicate that there are four career development competencies (process definition) (Kuijpers, 2000a, b):

- Self reflection: the competency to reflect upon personal capacities and motivations regarding the career.
- Work exploration: the competency to explore the labor market and specific work environment for suitable work (activities) and mobility prospect;
- Career control: the competency to plan and act upon one's own learning and working process;
- Self presentation: the competency to show and discuss one's capacities and values regarding work increasing the choices in career development.

Self Reflection

Self reflection, self research (Mensink, 1994) and self concept clarification (Taborsky & de Grauw, 1974) are central terms in research on career development and career services. Skills to reflect systematically on experiences are fundamental from the perspective of a changing labor market according to Kidd (1996). Career related research and practice, that focuses on matching persons with work requirements, puts emphasis on reflection of capacities. Meijers (1995) finds this cognitive method of approach too limited and pleads for emphasis on reflection on life values. Insight in one's motives and values in work are related to the meaning and identity of a person (Defilippi & Arthur, 1996) and is needed to be able to reach high performances.

Work Exploration

Acquire information on work related issues has been valued as being essential in career development. Gathering of *information about work* should be based on one's capacities and motivation. Information acquisition can take place on the different levels; information about work on the labor market, in a specific organization or on work activities. It handles content and development of work (Reynaert & Spijkerman, 1995; Meijers & Wijers, 1997). Another aspect of work exploration is *orientation on mobility*: the opportunities, procedures and relevant sources for transition on the labor market and in specific organizations, relevant for the capacities and motivation of a person. Crites (1984) describes the importance of using the right sources to gain information for career development.

Career Control

Based on self reflection and work exploration one can have to some extend control on his own career. Career planning is often valued as being essential; setting long and short term goals, determine activities to achieve one's goals and evaluate the results (Hall, 1987; Reynaert and Spijkerman, 1995; Kidd 1996).
Besides career planning, *control of the learning process* is of importance for career control (Onstenk, 1998). Activities of learning process control are for example: define and analyze learning questions, evaluate and obtain appropriate training and development activities.
Thirdly *control of one's work process* seems to influence career development. This indicates activities that affect the content of work in a way that work makes a better fit with one's capacities and motivation. Part of control of the work process is the balance of work and private life (Meijers, 1995; Defilippi & Arthur, 1996).

Self Presentation.

Career actualization will not be achieved by evaluation of self and work only. One should make clear to relevant others what one wants and is able to fulfil: *verbal career promotion*. Based on outcome of empirical studies Kidd (1996) emphasizes that negotiation regarding one's career is important in career development. Important factors are assertion of capacities, motivation and future career planning, together with the ability to obtain appropriate training facilities and gain support necessary for future career development. Next to the ability to express verbally the capacities and motivation is the actual *performance on the job*. One should perform well on those specific tasks that signify future career wishes. Another important factor of career development in a dynamic job-market and a dynamic organization is one's networking skills, the so called 'knowing whom' competencies (Defilippi en Arthur, 1996) for extending ones career relevant network. A *career relevant network* is the source of career related information and increases one's position on the job-market.

, These four competencies are used to study career actualization and its relation to the personal factors: gender, career phase and working position, and career success. In the next paragraph, the instrument development to measure career related competencies, the instrument and subjects involved in the main study, and the analyses will be outlined.

Methods

Instrument Development

The process of the development of an instrument for the measurement of career related competencies started with a study to clarify the important components. A literature survey combined with nine in-depth-interviews with experts on career development in The Netherlands was carried out. Experts are defined as either scientific workers who study on this subject or people who worked for a long time in de field of career development.
The interviews were analyzed with Atlas ti, a program for qualitative analysis of textual data. The text was coded, dimensions and indicators were formulated. This resulted in the division of four competencies. Based on the indicators derived from the interview texts with experts items were formulated. The questionnaire was presented to employees, researchers, methodologists and linguistic experts for advise on improvement.

For content validation five experts on career development, who were interviewed before and four experts who were not involved in the study before, were asked to evaluate the questionnaire. All nine confirmed that in general the questions measured the construct career related competencies. Furthermore four in-depth-interviews were held with experts by experience about the applicability of the distinguished competencies to their career paths. The initial developed questionnaire included 131 items to measure career related competencies. To be able to diminish the number of items and to get an indication of the reliability and homogeneity of the questionnaire, a pilot study was carried out under 197 employees (response of 42 %) from the IT and Educational sector. Based on homogeneity and reliability analyses the number of items were reduced from 131 to 69. Twelve clusters of items were formed. The four competencies were each divided in three aspects: ability, behavior and motivation.

Instrument

The questionnaire that was used in the survey consisted of 104 items of which 69 items measure career related competencies. Four competencies were divided in ability, behavior and motivation items. With regards to the ability items, the respondents were asked to judge their own ability on a Likert scales ranging from 1 (very low ability) to 5 (very high ability). On behavior items the respondents were asked to indicate to which extend he or she agreed with the given statement or how often he or she performs activities with regard to career development. On motivation items the respondent were asked to indicate the importance of a statement. Other aspects of the questionnaire are amongst others: personal factors like gender, age and working position and career success which is subdivided in career success from own perspective (5 items) and career success from others' perspective (5 items).

Subjects

The questionnaire was send to 3092 employees in 16 Dutch companies from March tot July this year. These companies were selected from a national database from the Association of Chamb ers of Commerce. 1598 Employees (52 %) returned the questionnaire. The response rate by the companies varied from 35% to 75%.
The questionnaire was send to employees working on high professional and academic level, with minimal one year of working experience and a minimal 20 working hours per week. The choice for the educational level was made because of the ability for reflection on ability, activities and motivation. In The Netherlands reflection on ones own performance is one of the aspect taught in college and academic education.

The group that returned the questionnaire consist of 69 percent male and 31 percent female employees. The average age of the respondents is. 39,5. 23 Percent fits in the career phase before 30 years of age, 44 percent in the phase from 30 to 45 years and 33 percent in the phase above 45 years. As for positions 49 percent works in operational positions, 22 percent in a management position and 18 percent in staff positions of which 3 percent HRD/HRM positions.

Analyses

Firstly homogeneity analysis by Homals were performed. Reliability, 'independent samples T test' and 'one way anova test' are performed of which the results are described in the next paragraphs.

Results

Reliability of Scales

Career actualization was operationalized into four competencies. These competencies were divided in ability, behavior and motivation. Cronbach's alphas of the used scales and the number of items per scale are shown in the following table:

Table 1. *Reliability Coefficients of Scale and subscales or Career Actualization and Number of Items*

Career actualization .94 (69)	Ability (A) .89 (29)	Behavior (B) .88 (32)	Motivation (M) .79 (8)
Self reflection (C1) .83 (17)	AC1 .69 (7)	BC1 .80 (8)	MC1 .63 (2)
Work exploration (C2) .80 (16)	AC2 .71 (6)	BC2 .71 (8)	MC2 .48 (2)
Career control (C3) .83 (20)	AC3 .72 (9)	BC3 .73 (9)	MC3 .56 (2)
Self presentation (C4) .84 (16)	AC4 .71 (7)	BC4 .71 (7)	MC4 .57 (2)

Scales of career actualization, competencies and modalities are reliable. Subscales of the combination of competencies and modalities regarding ability and behavior are satisfactory. The subscales regarding motivation are low, because the number of items are few.

The scale 'career success' consist of 10 items, Cronbachs alpha .75. Career success is subdivided in career success from own perspective (α: .73) and career success from others' perspective (α: .44).

Competencies for Career Actualization

To understand which competencies are relevant for career development one needs to know to what extend employees value their career actualization, or: ability, behavior and motivation on self reflection, work exploration, career control and self presentation. Table 2 shows means and standard deviations of the four competencies, the three modalities and the total: career actualization.

Table 2. *Competencies for Career Actualisation (n=1580)*

	M	Sd
Self reflection	1.61	.55
Work exploration	1.54	.54
Career control	1.45	.49
Self presentation	1.53	.55
Ability	1.55	.49
Behaviour	1.46	.50
Motivation	1.70	.72
Career actualization	1.53	.45

Employees, participants of this research, seem to be very motivated regarding career actualization. They evaluate their ability for career actualization higher than their behavior. It seems that employees mainly aim at self reflection and less on career control. Reflection on capacities (mean 1.64) mainly contributes to the high mean for self reflection. The lower score for career control is due to low means on career planning (1.41) and control on the learning process (1.43) and can not be attributed to the mean on control of the working process (1.51).
T- test results indicate a distinction between all competencies and their modalities on a significance level of .000, except the distinction between the competencies 'work exploration' and 'self presentation'.

To get more insight on the question of relevance of career related competencies, the question on the extend of relationships with personal factors and career success is studied. Gender, career phase and working position are the personal factors of which the results are presented here.

Career Actualization and Gender

The question is: To what extend differ male and female from aspects of career actualization? A T-test was performed on the grouping variable gender. The test variables were career actualization, the four competencies, the three modalities and combination scales of the last two (see table 1).
The significant differences between the groups are shown in table 3.

Table 3. *T-test (independent samples) on Career Actualization Between Gender*

Career actualization aspect	Groups Gender	N	M	Sd	T	Sig. (2-tailed)
C1	Male	1077	1.56	.55	-4.44	.000
(self reflection)	Female	490	1.70	.54		
M	Male	1076	1.67	.72	-2.86	.004
(motivation)	Female	490	1.78	.72		
BC1	Male	1079	1.40	.72	-4.27	.000
(behavior on self reflection)	Female	489	1.57			
MC1	Male	1073	1.64	1.03	-3.77	.000
(motivation for self reflection)	Female	488	1.85	1.00		
MC2	Male	1067	1.60	.87	-3.43	.001
(motivation for work exploration)	Female	485	1.76	.86		

The above indicates that women are more motivated in career actualization together with self reflection. Besides that they more motivated in work exploration but they do not regard their ability and behavior more enhanced in comparison with the male population.

Career Actualization and Career Phase

In this section is analyzed to what extent the career phase determines the motivation, ability and behavior regarding the career related competencies. The first phase includes the period from the beginning of the career till 30 years of age, the second from 30 to 45 years of age, the third from 45 years and above.

The results of the test show that young employees estimate their self reflection to a higher degree compared to other competencies and compared to employees in the second or third career phase. Young employees have high scores specifically on ability and behavior on self reflection, not so much on motivation for self reflection. On the other hand do they value motivation for work exploration and career control significantly higher than employees above 30 years of age. Also their behavior on work exploration is more extended than behavior of employees in other career phases. This is not the case for behavior on career control. .
In general employees below 30 years indicate that they are more motivated and do more on career actualization. Employees above 45 years value their ability for career actualization more than employees below 45, in particular ability for career control. Although not in every case significantly, the means of the middle career phase is in general lower than means of the other phases.

Career Actualization and Position

The third personal variables that is included in the study of career actualization is the position of the employee on the workplace. Three types of positions are distinguished: management position, operational position and staff

position. Specifically was asked for HRM and HRD officers as part of staff positions, because career development can be part of their job.

Table 4. *T-test (independent samples) on Career Actualization Regarding Management Position*

Career actualization aspect	Groups	N	M	Sd	T	Sig. (2-tailed)
C4 (self presentation)	no manager	1223	1.50	.56	-3.835	.000
	manager	345	1.62	.50		
A (Ability)	no manager	1224	1.54	.49	-2.783	.005
	manager	343	1.62	.46		
AC4 (ability for self presentation)	no manager	1222	1.48	.62	-4.366	.000
	manager	343	1.64	.56		

Table 5. *T-test (independent samples) on Career Actualization Regarding Operating Position*

Career actualization aspect	Groups	N	M	Sd	T	Sig. (2-tailed)
C4 (self presentation)	no operating staff	807	1.57	.53	3.12	.002
	operating staff	761	1.48	.56		
AC4 (ability for self presentation)	no operating staff	804	1.56	.60	3.05	.002
	operating staff	761	1.46	.63		
MC4 (motivation for self presentation)	no operating staff	800	1.83	.93	3.04	.002
	operating staff	758	1.69	.96		

The results above indicate that managers find themselves more competent and operational workers are less competent in self presentation. Managers value their ability for career actualization in general more than employees in other positions, specifically for self presentation. Operational workers estimate their ability for self presentation less, but they also seem to be less motivated for self presentation.
Staff workers, including HRM and HRD officers, don't indicate that they are more motivated, able or active regarding career actualization than other workers.

Career Actualization and Career Success

An essential question regarding career actualization is whether or not career actualization correlates with career success, and more specifically to which extend competencies and modalities of career actualization covariate with career success. Career success can be valued by others or by one self. Career success is valued by others through (un)employment, level of work position in comparison with education, salary, application success, promotions and social appreciation for the work. Career success can be valued by one self in the extend one can use his/her talents in his/her work, the evaluation of the importance of the work and the success of the career path up to now, and the satisfaction about development in salary, in career and about balance between work and private life.

Table 6. *Correlations between Career Actualization and Career Success (n=1580)*

	Career success others perspective	Career success own perspective	Career success
Self-reflection	.038	.081*	.071*
Work exploration	.051	.129*	.114*
Career control	.091*	.222*	.194*
Self presentation	.210*	.297*	.299*
Ability	.161*	.295*	.276*
Behavior	.068*	.133*	.122*
Motivation	.020	.069*	.057
Career actualization	.112*	.214*	.197*

* correlation is significant at the 0.01 level

Career actualization in general is more related to career success from one's own perspective than to career success from others perspective. The evaluated ability for career actualization is most correlated to career success. The competency 'self presentation' is related to career success from the perspectives from self and others, 'career

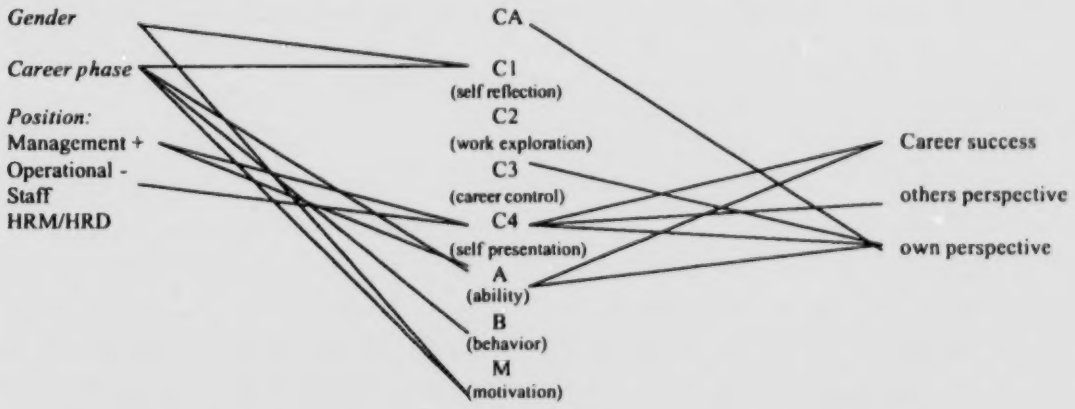
control' more to career success by own perspective. The competencies 'self reflection' and 'work exploration' are less related to career success.

Conclusion

The competencies that can be distinguished at this stage of the study are: self reflection, work exploration, career control and self presentation. These competencies, formulated based on interviews with experts and employees, were recognized in the results of the survey. Modalities of competencies that were distinguished are: ability, behavior and motivation. The (sub)scales which were developed to measure career actualization are in general reliable. The competencies and modalities distinguish themselves from each other statistically significant except for the competencies 'work exploration' an 'self presentation'.

Employees involved in this study are well motivated for career actualization. They evaluate their motivation higher than their ability, and their ability higher than their behavior. Focussing on the content aspect of competencies of career actualization the results show that self reflection is more and career control is less used for career actualization.

Personal factors which were described in this paper are: gender, career phase and work position. Female employees evaluate self reflection and motivation for career actualization higher than male employees. Younger employees (below 30 years of age) estimate their selfreflection, behavior an motivation to a higher degree than the employees in a later career phase. They also indicate that they act more upon work exploration. Employees in the career phase above 45 year estimate themselves in a higher degree regarding the ability for career actualization. Regarding the working position of employees it appears that managers value their self presentation higher than their other competencies and than employees on other positions. Employees on operational positions value self presentation lower. They are also less motivated for self presentation. Managers estimate their ability for career actualization in general higher than employees on other positions.
The personal factors that differ between groups on content and modalities of career related competencies are shown in the figure below.



In this figure is shown which competencies and its modalities are related (correlation more than .20 at .001 significance level) to career success. Career success in general is related to the competency 'self presentation' an the modality 'ability'. Career success from others perspective is only relevant related to 'self presentation'. Career success from own perspective is related to career actualization in general and to 'career control', 'self presentation' and 'ability'. The competencies 'self reflection' and 'work exploration', and the modalities 'behavior' and motivation' are less related to career success.

The figure shows that the competencies and modalities, which are regarded to be relevant for career actualization, relate differently to personal factors and career success. This indicates a distinction between competencies and modalities. More advanced analyses are needed to expand on the concept of career actualization.

Contribution of the Study to the HRD Field

Little empirical studies are performed regarding career development as a process. The PhD. study, of which some results are presented in this paper, intend to give more insight on the relation between personal and situational factors and career related competencies, and between career related competencies and career success and HRD interventions.

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Project Management Competencies Needed by HRD Professionals: A Literature Review

Charlotte M. Nitardy
Gary N. McLean
University of Minnesota

Project Management is internationally recognized as a management tool that is critical for success in the current work environment. It has grown into a core competency that is recognized widely. This paper reviews the literature on project management competencies, especially as it relates to Human Resource Development. We identify competencies and training needs required of project managers operating in HRD contexts, along with proposals for further research.

Key words: Project Management, Competencies

In 1987, the American Society for Training and Development (ASTD) commissioned a competency development study for human resource development professionals (Gray, 1999). The study explored the competencies requested of prospective HRD practitioners by employers in areas of personal, business, and intellectual competencies. Project management was at the top for Business Competencies and in the top five of competencies deemed critical to the success of an HRD practitioner. Our review of the literature on project management competencies needed by HRD professionals found that project management was key in all of the competency literature.

Research Problem

Project management is a large field that has the potential for significant impact on the field of Human Resource Development. However, no research was identified that explored empirically the specific project management competencies required of HRD professionals. This paper addresses the question, What project management competencies are required by HRD professionals? This paper is the first step in a larger research project. In this paper, the literature around this question is summarized, with implications for HRD. It is the intent of the authors to follow up on this paper with a survey of HRD professionals to determine the priority of project management competencies needed by them and ways in which such competencies have been and can be developed.

The results may be used for planning by individuals, organizations, and educational institutions. Individuals may use the findings of this study to evaluate their knowledge and skills in project management. Organizations seeking individuals for HRD positions may apply the findings to their candidate search criteria. Educational institutions preparing HRD professionals may consider these data in the design, development, and evaluation of curriculum.

Specifically, do HRD professionals need project management competencies? And if so:

1. What are the most important project management areas for practicing HRD professionals?
2. Why are the areas selected by the experts the most important for practicing HRD professionals?
3. What level of project management preparation do practicing HRD professionals need in order to succeed in the field?

History of Project Management

Most of the literature on project management suggests that 1957 was the date of its birth (Devaux, 1999). From its conception, project management has been perceived as a scheduling tool–The Critical Path Method (CPM) in the construction industry is documented to have started in 1957, and Program Evaluation and Review Technique (PERT) used in some consulting companies is documented to have started the following year. Devaux concluded that project management techniques have worked with differing degrees of success, in different industries, different companies, and on different projects. Project management has grown and is now internationally recognized as a management tool that is critical for success in the current work environment (Dilworth, 2001).

Although projects have been used extensively in the construction, space exploration, and engineering fields, their application has spread to a host of industries (Crawford, 1998). Organizations have recognized the efficacy of projects to create cross-functional teams and to achieve rapid results within time and budget constraints. This has made project management a critical and powerful tool for the modern organization (Pinto & Kharbanda, 1996).

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Competencies

Competencies are commonly considered by organizations to help guide human resource development and in making human resource management decisions. Many definitions of competence exist. Frame (1999) described competence as consistently producing the desired results. A competency can also be considered a group of related knowledge, skills, and attitudes that influences performance (Parry, 1996). Ayer and Duncan (1998) expanded the definition of competency to refer to a specific, observable behavior or characteristic that leads to superior performance. There is a strong tradition of behavior-based competency research by Boyatzis (1982), and Spencer and Spencer (1993) that adds to the concept of competency by including the individual's motives, traits, and self-image or social role.

Project Management

According to Devaux (1999), every project, no mater what the industry or work type, is a compromise among three variables: scope, time, and cost. Scope is the total amount of work to be conducted or the sum of activities that will lead to the deliverable or product. The cost is the budget or the total resource usage required to accomplish the work scope. Time is the total elapsed time, from concept to completion, that it takes to perform the work scope. Thus, a competent project manager will be able to manage all three factors. According to Verzuh (1999), setting realistic expectations, fostering agreement among all parties, and then delivering the product is frequently challenging and always requires a wide array of techniques. Managing these techniques effectively is also necessary for a project manager.

Project Management Competencies

Understanding project management competence is important in job evaluations, staff development, recruitment and selection, training needs analysis and planning, job descriptions, and assessments and appraisals. According to Frame (1999), individuals and organizations have begun to see that what is needed is an internationally recognized approach to assessing the project management competencies of project managers since several project initiatives rely on these competencies. The creation of Project Management Institute's (PMI) U.S.-based, certification examination in 1984 was an attempt to fill this need for a more professional approach to competency verification. Shortly after, APM, the U.K.-based Association for Project Management began to test whether people met their project management standards. APM developed its own Body of Knowledge and launched its certification program in the early 1990s. APM felt that the then PMI PMBOK Guide did not adequately reflect the knowledge base that project management professionals needed. As described later, there is a considerable difference between these associations' bodies of knowledge.

Some have suggested that certification does not guarantee project success (Sattler & Neights, 1998). There is need to develop these skills in the context of individual work environments. One context in which little has been written on project management competencies is HRD. Also, little is known as to which competencies are correlated with project success. It does appear that a project participant does not need to acquire all possible project management competencies. Ayer and Duncan (1998) suggested that one may be missing some competencies and still be considered competent. They said that competency balance and alignment with both contingency variables and organizational project management maturity are ideal state conditions. Also, all of the research evidence (Cooper, 1993; Crawford, 2000; Morris & Hough, 1987) has shown that, in order to deliver successful projects, managing scope, time, cost, resources, quality, risk, procurement, and so forth, the PM BOK factors alone are not enough. Dinsmore (1984) outlined the attributes of a good project manager as shown in Table 1, below.

Project management bodies of knowledge (PMBOK) have been published by professional project management associations for 10 to 15 years (Morris, 2001). Not only do they provide standards against which the associations' certification programs are run, many practitioners and companies use them as best practice guides to what the discipline comprises.

However, as seen above, the fact that there are at least two quite different versions of the BOK--PMI's and APM's (IPMA's)--implies confusion at the highest level on what the philosophy and content of the profession are. Basically, the two models reflect different views of the discipline. PMI's model essentially is focused on the generic processes required to accomplish a project: on time, in budget, to scope. APM's reflects a wider view of the discipline, addressing both the context of project management and the technological, commercial, and general management issues that it believes are important to successfully accomplishing projects (Morris, 2001).

Table 1. *Attributes of a Good Project Manager (Dinsmore, 1984):*

1. Leadership
- Clear direction and leadership
- Participating in technical problem solving and decision making.
- Clearly delineating goals and objectives.
- Unifying team toward project goals.
- Delegating.
- Sound decision-making.

2. Technical Expertise
- Understand the technologies involved in the design, development, production, and fielding of the project.
- Understanding of applications, markets, and customer requirements.
- Managing technology.
- Assessing risks and trade-off.
- Predicting technological trends.
- Assisting in the problem solving.
- Communicating effectively with technical team.

3. Human Skills
- Building multi-disciplinary teams.
- Involving and stimulating personnel.
- Managing conflict.
- Communicating both orally and in writing with all levels of personnel.
- Fostering a work environment conducive to teamwork.
- Involving senior management.

4. Administrative Skills
- Project planning.
- Resource negotiations.
- Securing commitments.
- Assuming measurable milestones.
- Establishing operating procedures.
- Establishing and maintaining reporting and review systems.
- Establishing and managing project records.
- Effective use of program management tools and techniques.
- Effective manpower planning.

5. Organizational Skills
- Understand how the organization works and how to work with the organization effectively.
- Building multi-functional work teams.
- Working effectively with senior management.
- Understand organizational interfaces.
- Setting up an effective project organization.

6. Entrepreneurial Skills
- General management perspective.
- Managing a project as a business
- Meeting profit objectives.
- Developing new and follow-on business.

Source: Dinsmore, (1984, p. 129-130).

Project Management Institute (PMI) Model

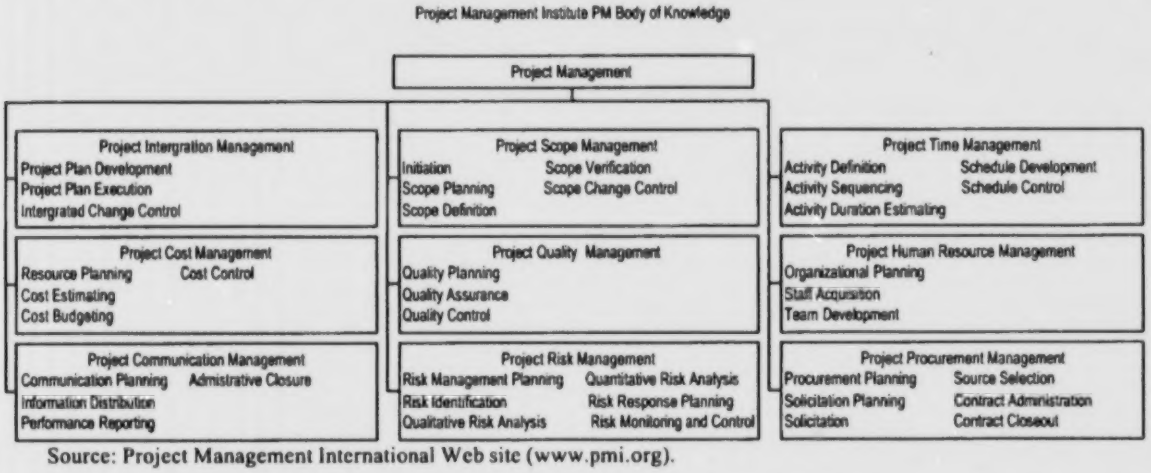
PMI, as first in the field with this initiative (Cook, 1977), established its first project management body of knowledge (BOK) in 1976. It was not until the mid-1980s that PMI's became the basis of its standards and certification program. The certification examination developed by PMI was designed to measure the knowledge-based competencies of project professionals (Frame, 1999). PMI identified nine basic functional competencies that project professionals should master, as shown in Figure 1.

Association for Project Management Model

APM's model, as seen in Table 2, was influenced strongly by research on what it takes to deliver successful projects (Morris & Hough, 1987). This research addressed the question of what the professional ethos is in project management. Is it to deliver projects "on time, in budget, to scope," as the traditional view has had it (Archibald, 1997; Meredith & Mantel, 1995), or is it to deliver projects successfully to the project customer/sponsor? In essence

it has to be the latter, because if it is not, project management is a profession that, in the long-term, business and industry is not going to get very excited about (Morris & Hough, 1987).

Figure 1. Project Management Institute Body of Knowledge



Source: Project Management International Web site (www.pmi.org).

Table 2. *Association for Project Management BOK*

General and Strategic	Control	Technical	Commercial	Organizational	People
• Project Management • Program Management • Project Context • Project Success Criteria • Strategic/Project Management Plan • Value Management • Risk Management • Quality Management • Health, Safety and Environment	• Work Content and Scope Management • Time Scheduling/Phasing • Resource Management • Budgeting and Cost Management • Change Control • Earned Value Management	• Design, Implementation and Hand-Over Management • Requirements Management • Estimating • Technology Management • Value engineering • Modeling and Testing • Configuration Management	• Business Case • Marketing and Sales • Financial Management • Procurement • Legal Awareness	• Life Cycle Design and Management • Opportunity • Design and Development • Implementation • Hand-Over • Post Project Evaluation Review • Organization Structure • Organization Roles	• Communication • Teamwork • Leadership • Conflict Management • Negotiation • Personnel Management

Source: Association for Project Management, (2000, Fourth Edition)

HRD Professional and Project Management Competencies Findings

Developing HRD professionals requires a theory of competencies about what HRD professionals must know and do and a development experience based on those competencies. Many of the competencies required to be a good project manager are also required to be a good HRD professional. Table 2 shows some parallels between the first five steps in an OD intervention (Rothwell, Sullivan, & McLean, 1995) and the PM BOK. There are many similarities.

Recent research has shown that it is the project manager who emerges as the single overriding factor which decides a project's success or failure (Zimmerer & Yasin, 1998; Sattler & Neights, 1998). As more organizations

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move towards a project-based approach, the demand for project managers has outstripped supply and there is a growing international interest in the selection, training and certification of project managers (Stewart, 1995;

Table 3. *Steps in OD Intervention Paralleled with PM BOK Process Groups and Competencies.*

Steps in OD Intervention	*Brief Description from Rothwell et al.*	*PM BOK Process groups and competencies*
1. Entry	The need for change in an organization becomes apparent. A problem is discovered. Someone or groups of people in the organization look for a person who is capable of examining the problem or facilitating change.	Business problem/limitation is identified from a strategic plan.
2. Start-Up	The change agent enters the picture, working to clarify issues surrounding the problem and to gain commitment to a change effort. *Elements of Start-up* ❑ Identify the client and the sponsor(s) ❑ Becoming oriented to the clients' world; ❑ Establishing consultant's competence and credibility ❑ Developing open and trusting relationships ❑ Understanding organization's political system; ❑ Contracting the work to be done	Project Initiation ❑ Identify stakeholders who will be reviewing and approving project deliverables, make decisions and move the project along, remove business, technical or project roadblocks. ❑ Build partnership/trust with stakeholders – develop good working relationships Procurement planning Solicitation planning Solicitation Staff acquisition
3. Assessment and Feedback	The change agent gathers information about the problem and gives decision-makers and those having a stake in the change process feedback about the information.	This process is hopefully not necessary in project management because the assumption is that needs assessment has already been completed and the nature of the project determined before the recruitment of a project manager.
4. Action Planning	The change agent works with decision-makers and stakeholders to develop a corrective action plan. Action planning steps: ❑ Determine the client's degree of choice about change ❑ Determine what needs to be changed; ❑ Determine where to intervene; ❑ Choose intervention technologies Processes for developing plan: ❑ Activities should be linked to goals ❑ Activities should be clearly identified rather than broadly generalized; ❑ Discrete activities should be linked; ❑ Activities should be time sequenced; ❑ Contingent plans should exist in	Plan Scope Statement ❑ Includes a statement of business need/limitation/opportunities. ❑ Describes what is required as an outcome/project deliverables – objectives. ❑ It is a contact between the project manager/team and its stakeholders ❑ It sets expectations of the project ❑ It describes the project's scope and cost – estimating and scheduling ❑ It provides an ROI ❑ Project activity sequencing ❑ Disclose risks and how you plan to manage them ❑ Include business, technical and project assumptions ❑ Communication plan Resource planning

	case unexpected forces develop during the change process; ❑ The change plan should be supported by top management ❑ The plan should be cost effective.	
5. Intervention	The action plan is implemented. The change process is carried out in the three performance levels: ❑ Organizational level ❑ Process level ❑ Individual job/performer	Execute–project plan execution Change and HR management ❑ Team Development ❑ Conflict management ❑ Success recognition/celebration Project Cost management – cost control Project quality management Risk management Risk monitoring and control Schedule control Scope change control Project communication management

Crawford, 1998). In order to accomplish the above eight steps of an OD intervention on time, within budget, and according to specs, an HRD professional would need to construct a work breakdown structure. According to Frame (1999), each profession has its tools, and mastery of the tools is one of the key goals of the professional. Below are some of the tools outlined by Frame (1999) that could be used in conjunction with these steps (Table 4).

Table 4. *Project Management Tools That Could Benefit HRD Professionals*

	Scope Management Tools
Work breakdown structure	A product-oriented listing of key elements of the project
Benefits-cost analysis	A project selection tool that requires organizations to assess the relative benefits of a proposed project and contrast these with project costs
Configuration management	A change-control methodology that requires meticubus documentation of changes to the project
	Time Management Tools
Gantt chart	A bar chart that portrays simply how different tasks are laid out over time
Milestone chart	A chart that pictures key milestones against a time line
PERT/CPM chart	A network diagram that shows the dependency relationships of tasks
Earned-value technique	A cost-accounting methodology that allows analysts to perform integrated cost-and-schedule-control reviews of projects
	Cost Management Tools
Cost-estimating techniques	Top-down and bottom-up techniques employed to estimate project costs
Cumulative cost curve	A method that enables staff to compare actual versus planned costs over time in order to identy levels of cost variances
Life-cycle costing	An overview of project costs that looks at operations and maitenance costs in addition to project costs.
Capital budgeting tools	Basic financial investment techniques, including present-value analysis, internal rate of return, and payback-period analysis.
Earned-value technique	A cost-accounting methodology that allows analysts

	to perform integrated cost-and-schedule-control reviews of projects
	Human Resource Management Tools
Motivation and team-building techniques	Techniques that focus on motivating matrixed resources
Management by objectives	A management approach that requires the creation of unambiguous and achievable objectives
Responsibility Matrix	A simple chart that juxtaposes resources and task listing, showing who is supposed to do what
Resource Gantt chart	A bar chart that shows how individuals resources are allocated to tasks over time
Resource loading chart (histogram)	A chart that shows the number of resources allocated to a project over time
	Risk Management Tools
Risk assessment methodology	A three-step process that entails risk identification, risk impact analysis, and risk response planning
Scenario building	The analysis of possible project outcomes using a step-by-step approach that shows how one outcome might lead to another and how these outcomes might lead to others and so on
Monte Carlo simulation	A multi-iteration, statistical technique that estimates such things as budgets, tasks durations, and resource loadings
Basic statistical concepts	Procedures including mathematical expectation, expected monetary value, mean, mode, median, and standard deviation
Decision tree	A tree-shaped diagram in which each branch represents a possible course of action, with an associated probability of occurrence
	Quality Management Tools
Standard quality control techniques	Methodologies including control charts and run charts
Pereto diagram	A chart that highlights the sources of problems leading to quality deficiencies

Source: Frame (1999, p. 55-57).

Next Steps in Research

Based on this review, we propose that the following be undertaken as research projects:

1. Using the project management competencies identified in this review, determine the project management competencies that are adjudged to be necessary for HRD practitioners and assess the principal training needs in project management for HRD professionals by establishing the gap between the level of importance of each competency and the perceived level of expertise that exists for each one among practitioners through a survey of HRD professionals and managers.
2. Through a survey of HRD academics, collect data on the extent to which project management competencies are provided in academic programs.
3. Conduct a case study of companies currently using project management competencies within their human resource development areas.

Conclusion

Skills, knowledge, and attitudes form the foundation of competence. While there is little literature yet identified, it appears that HRD professionals require project management competencies. However, achieving competency is not an end to be achieved, rather it is a road to be traveled. To be effective, one needs to develop continually new competencies in an environment that is continually changing. Academic programs and HRD professionals both have

a responsibility to insure that HRD practitioners have such competencies. To do this effectively, much more information is needed. Thus, there is a need to determine the existing level of competency of HRD practitioners, the importance of the various project management competencies for HRD, the extent to which academic programs provide these competencies, and what more is yet needed in training and in academic programs.

Implications for HRD

It is not yet clear what the implications are for HRD. Much more research is needed before it is clear. Anecdotal information suggests that managers are concerned about deficiencies in project management possessed by HRD professionals. This anecdotal information, however, needs to be replaced with more evidence from the field as to the level of competency in project management that is needed by HRD professionals, the existing level of competence, and the role of academic programs in providing these competencies.

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The Determination of Key Skills from an Economic Perspective

Jasper B. van Loo
Maastricht University, The Netherlands

Bert Toolsema
University of Twente, The Netherlands

We review the 'key skills' concept and design a methodology to determine which skills are key skills. Notwithstanding a large research tradition on key skills, there exists no clear criterion that is suitable to guide this decision. HRD might gain from such a criterion since an optimal investment in skills requires information on which skills are 'key' in production. Following the theoretical part, we determine key skills empirically using a dataset of vocational education graduates.

Keywords: Key Skills, Economics

Key (or 'core') skills play a significant role in the current debates on the importance of skills and lifelong learning. A large literature on key skills notwithstanding, there does not seem to be not much agreement on the exact definition of key skills. In the UK, for example, key or core skills have been defined in many different ways. Some have seen them as the way out of the over-specialized A-levels, or as a way to bridge academic and vocational tracks. For Uk's Vocational Education and Training system some have argued that core skills are a means through which skills or qualifications can be transferred to multiple (vocational) contexts (Green, 1998).

To make it even more complicated, there seems to be an international linguistic confusion about the terms themselves. In the United States key skills are usually called "basic skills" (e.g. Bynner, 1997) or "generic skills" (Stasz, 1998), whereas in continental Europe (e.g. Germany or the Netherlands) one speaks of "key qualifications" or "key competencies" (Bunk, 1994; Nijhof, 1998; Onstenk, 1997; Reetz, 1989a, 1989b).

Typically, policy documents contain lists of key skills that seem plausible at first sight, but justification for which skills should be included are not given. Part of the confusion in the field of key skills has arisen due to the fact that *skills* have been studied from many different scientific backgrounds. Psychologists have treated skills as personal cognitive or physical fitness for task completion (Anderson, 1995; Gagné, Briggs, & Wager, 1988). In sociology, skills are perceived as means for workers to identify themselves with a certain vocational population. And for economists, especially those adopting the Human Capital theory, skills are personal attributes that are required in the process of value adding in the workplace (Attewell, 1990). In education skills are treated as trainable procedural personal proficiencies, which can be measured in performance tests.

One of the main issues in modern Human Resource Development (HRD) is keeping workers' skills up to date. Due to the ongoing changes in the workplace, workforce flexibility has become an important asset in keeping organizations competitive (Watkins & Marsick, 1993). Investing in workers' skills has therewith become part of company strategy in many organizations. An efficient investment in worker skills requires, however, that information is available on which skills are most important to invest in. Up until now, presumably, most organizations have relied on the current debate for deciding on which skills to invest in. Throughout the years, different key skills have been emphasized. With the emergence of new ways of organizing work, 'team working' skills have been stressed as key skills, while the diffusion of information technology in many workplaces has triggered the emphasis on ICT skills. Although there is a growing literature on key skills, both theoretical and empirical arguments for what skills are key skills and what skills are more 'key' then others, are lacking. In this paper, we attempt to bring some consistency in the debate on key skills by developing a methodology that enables the identification of key skills from an economic perspective. The central research question of this paper therefore is: *How can we determine which skills are 'key' skills in a theoretically sound manner?* The remainder of this paper is organized as follows: In the next two sections we review the key skill concept and develop a model for determining key skills. We then discuss the methodology used to determine key skills empirically. Using a dataset of working Dutch intermediate vocational education graduates, the results of this exercise are presented in the next section. The final section concludes and summarizes.

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Theoretical Framework

Key skills: Some InsightsFrom the Literature

One of the early American examples of the use of key skills in practice can be found in 1983 in the district of Lewisville, Texas. A Superintendent's Advisory Committee conducted a study in order to determine the desired key skills of students graduating from high School. They developed a questionnaire, which was sent to community members and officials from the business and professional community. Respondents were asked to rate the skills they found important. The 62 surveyed skills fell into nine categories. The skill categories rated "important" or "extremely important" by 80% or more of the members of the business and professional community were: Decision-making Skills; Future Plans; Life Coping Skills; Physical, Social, and Personal Health; and Computational Skills (Killian, 1983). In this example key skills refer to the most *important* or *desired* skills. These skills are different from the key skills found in the UK, where key skills are of a *generic* and *transferable* nature.

In the context of vocational education in Britain, key or core skills particularly refer to the core of functioning at work. Core skills reside in the training and vocational branch of education (Tribe, 1996). The basic ideas of the UK core skills movement can be linked to a list set up by the Further Education Unit in 1979. According to this document, core skills were supposed to:

- bring about an informed perspective as to the role and status of a young person in an adult society and the world of work;
- provide a basis from which the person can make an informed and realistic decision with respect to his or her immediate future;
- bring about continuing development of physical and manipulative skills;
- bring about an ability to develop satisfactory personal relationships with others;
- provide a basis on which the young person acquires a set of moral values applicable to issues in contemporary society;
- bring about a level of achievement in literacy, numeracy and graphicity appropriate to ability and adequate to meet the basic demands of contemporary society;
- bring about competence in variety of study skills;
- encourage the capacity to approach various kinds of problems methodically and effectively, and to plan and evaluate courses of action;
- bring about political and economic literacy;
- encourage an appreciation of the physical and technological environments and the relationship between these and the needs of man in general, and working life in particular;
- bring about a development of the coping skills necessary to promote self sufficiency in young people;
- bring about a flexibility of attitude and a willingness to learn, sufficient to manage future changes in technology and career.

  (Tribe, 1996, p. 13-14)

Many lists of core skills have followed since then. Some aspects, however, come back in many lists. Core skills have been looked at as being skills that are generic and transferable, which means that they are applicable to a wide variety of occupations and transferable to many contexts. According to Tribe, most of the lists include: communications, numeracy, problem solving, teamwork, and technology skills. However, the question of which skills should be on the lists of key skills has not been approached using a scientific criterion. In practice, the skills on these lists tend to be those skills that are subjectively needed for education, everyday life and especially for work (QCA, 2000). Green (1998, p. 34-35) describes how core skills emerged in the UK:

"Core skills have emerged out of an historical absence in the UK. Alone amongst the major European nations in the 19th century, England developed a technical and vocational education that had no inherent connection with general education and schooling. Whilst on the Continent, and particularly in France and the German speaking states, the typical form of vocational training was the state-sponsored trade school, which combined workshop training with systematic instruction in vocational theory and general education, in England, with its voluntarist traditions, there were few such schools and vocational as opposed to skills training had to evolve in an ad hoc and relatively unsupported fashion [...]"

In reality in the UK, core skills refer to "just-enough" basic theoretical content. General academic education is brought into the vocational curriculum in an attempt to give vocational training a more profound general (theoretical) foundation (Tribe, 1996). Training in this sense becomes instrumental, especially to economic growth and prosperity. This has resulted in the criticism that core skills only represent the low level minimal standards of the academic content in UK's VET. General academic education is brought into the vocational curriculum as far as it underpins performance in expected work tasks and can be reduced to core skills (Green, 1998, pp. 28).

The core skills in the UK were renamed by the Qualifications and Curriculum Authority (formerly National Council for Vocational Qualifications (NCVQ) and the School Curriculum and Assessment Authority (SCAA)) into key skills. The QCA adopted a list from City and Guilds which consists of:

- Communication;
- Application of number;
- IT;
- Working with others;
- Improving own learning and performance; and
- Problem solving.
  (QCA, 2000)

According to the QCA, key skills are widely applicable in work, education and everyday life. This does not help much in further defining the concept.

Across national boundaries, the literature reveals that reasons for including a skill as in a list of key or core skills have usually been political or practical. The National Institute for Literacy has recently published a study that describes the identification of key skills (Merrifield, 2000). In this study, common activities and generative skills (which appear to be closely related to the key skills concept) were defined by using an iterative procedure by a number of working groups of experts. In another document, in the context of California community colleges, the definition of core skills is left to faculty, since they "...agree on a body of skills that most or all of our students should master before graduating" (Palomar College, 1999). The European Training Foundation (Shaw, 1998) has relied on a survey among experts in the EU-countries in order to determine key skills. There have also been changes over time regarding the definition of key skills. Typically, inspired by developments taking place in the work place, employers, politicians or other stakeholders have emphasized the importance of certain skills, which has resulted in many different lists of key/core skills.

The debate on key skills would greatly benefit from a common definition. Not claiming to have found the perfect one, this is our point of departure. Within the scope of this paper we define key skills from an economic perspective. As a starting point we consider *skills* to be personal and related to productivity, restricting its scope to work. Secondly, most skills can be developed or shaped by means of education and training or experience. Some skills, however, are difficult to develop. These are usually connected to attitudes or personality. Thirdly, literature on expertise has showed that skills are especially context-bound, since they are developed and applied in specific contexts of human activity (e.g. in a specific job, with specific restrictions, or in a specific organization) (Chi, Glaser, & Farr, 1988). We may define skills as:

Individual (developed or innate) attributes representing context-bound productivity.

Key skills, as we saw in the discussion above, have appeared due to the fact that some underpinning foundation of transferability is needed at the present labor market. Stasz (1998) argued that the modern workplace is changing because of technological innovations, flatter organizational hierarchies, and increasing globalization of markets. These changes have caused a higher demand on the flexibility of the workforce, which is reflected in hiring decisions of employers. Employers increasingly demand "generic skills" next to job-specific skills. Although research by (Bishop, 1997) showed that job-specific skills are still among the most wanted and productivity-related skills, he admits that the more general and underpinning skills are important as well. Bishop, focusing at the productivity effects of skills, reflected in wage and employer satisfaction, argues that skills like reading and mathematical skills "contribute to productivity by helping the individual learn the occupational and job specific skills that are directly productive. This implies that key skills impact productivity indirectly, rather than directly. If this is the essential characteristic of key skills, they may be defined as:

Skills that have stronger indirect effects than direct effects on productivity.

The remainder of this paper is devoted to finding skills that have this characteristic. This implies a better justification of developing a list of key skills. Rather than making political statements, those skills that have a larger indirect contribution to productivity than their direct contribution may be identified as key skills.

Identifying Key Skills: An Economic Framework

The contribution of skills to economic success, and in particular to productivity, can be measured in several ways. For example, one could determine the relative importance of skills to employers, for instance by studying selection criteria. One could also relate wage inequities of groups within a population to skills profiles. Usually the educational qualifications of groups earning higher wages are compared to the qualifications of those earning less. Another methodology might be an ethnographic approach, in which one studies in detail which changes took place within production or service industry work and their consequences for skill requirements. A final example is to determine skills effects in a mathematical way by relating skills to wages (Levy & Murnane, 1999).

In economics the determination of skills that matter for wages has a rich history in the literature. In the well-known human capital literature (Becker, 1962; Mincer, 1974), skills are essentially divided into being either general or specific. Later, attention has been paid to skills that fall in between, so-called 'transferable skills' (Stevens, 1994). The attention for skills as such, opposite to composites of human capital, has led to the development of research that addresses the contribution of different types of skills to productivity or wages. This literature has usually focused on a mathematical linear relation between skills and wages of the form:

$$\ln W_i = \beta_0 + \beta_1 S_{1i} + \ldots \beta_N S_{Ni} + \varepsilon_i, \quad (1)$$

This approach has two drawbacks. Firstly, it does not focus on the relation *between* different skills, which seems essential when one tries to determine what skills are key skills. Secondly, the results of the regression analysis presented in (1) may be blurred by serious multicollinearity, since different skills tend to be strongly correlated.

In this paper, we present a different approach for determining key skills. In order to focus on the 'key' nature of the skills, we explicitly take into account the relations that exist *between* the different skills distinguished. We do this by finding the relationships between the different skills first, before performing any kind of wage regression. When key skills are considered to be skills that make other skills more productive, we may set up the following model:

$$S_{in} = c_n + \sum_{j=1}^{N, j \neq n} \beta_{jn} S_{ij} + \varepsilon_{in} \quad (2)$$

For all skills (S_n, n=1…N) this equation relates S_n to a constant and all other skills (S_j, j=1…N and j≠n). Now, in order to find the indirect effect of a skill j, we add up all the contributions of this skill to other skills, or in formal terms:

$$\gamma_j = \sum_{m=1}^{N, j \neq m} \beta_{jm} \quad (3)$$

In a second step, we set up a skill-wage equation:

$$\ln w_i = \alpha + \beta_n S_{in} + \varphi_j \sum_{j=1}^{N, j \neq n} S_{ij} + \varepsilon_i \quad (4)$$

This equation relates a skill *n* and the summation of all other skills to wages. We then use (3) and (4) to determine the marginal effect of a change in the skills. The direct wage effect of a marginal change in S_{in} is β_n. A change in S_{in}, however, also has an indirect effect on all other skills, namely γ_j (equation 3). Since we are dealing with marginal changes, γ_j can also be considered as the total change in $\sum_{j=1}^{N, j \neq n} S_{ij}$, implying that the total indirect wage effect is $\gamma_j \varphi_j$. In other words the skill-wage equation is composed of two skill effects: a direct effect of a certain skill to wages and a total indirect wage effect of the same skill. Now we can calculate both effects for each skill.

Research Questions

The research questions that evolve from the previous discussion are:

1) Which skills may be considered 'key skills', in the sense that their indirect effect on productivity is larger than their direct effect?
2) What are the direct and indirect productivity effects of these 'key skills'?

A key skill has been defined as a skill that has a larger cumulative indirect effect on other skills than on itself. In terms of equation (3) a skill is a key skill when $\gamma_j > 1$. The second research question is on the productivity effect of key skills. We calculate this productivity effect using equations (3) and (4), as explained above.

Methodology

In order to determine which skills are key skills, we use data from a graduate survey of Dutch intermediate vocational education graduates. The respondents where approached approximately 1 year after they graduated. During October-December 1999, 18.513 questionnaires were sent out, of which 9068 were returned. A little over 1.000 questionnaires were not suitable for data-entry, so that 7.889 cases remained. In order to focus on a group that is relatively similar in terms of activities, we selected those respondents who were working full-time (at least 35 hours) in an organization (we excluded self-employed graduates). This left us with 1702 cases for analysis.

The part of the questionnaire that is of particular interest for this paper is the list of skills. For fifteen different skills, respondents where asked to indicate on a 5 point Likert scale to what extent the listed aspects are required in their work. Using the data from these fifteen skill measures we approached skill by the so-called 'competence-in-use' concept (see Ellström, 1998), implying that skills are measured by the interaction between individual capacities and job requirements. Table 1 gives an overview of the skills investigated together with their average scores.

Table 1. *Skills in the graduate survey and their average scores*

Skills	Score
Professional theoretical knowledge (S1)	4.21
Understanding of ICT (S2)	3.84
Understanding of operational management (S3)	3.60
Putting theoretical knowledge and techniques into practice (S4)	4.07
Written presentation, writing skills (S5)	3.48
Oral presentation, speaking skills (S6)	3.95
Transfer of knowledge (S7)	4.00
Planning, coordinating and organizing activities (S8)	3.85
Problem-solving skills (S9)	4.36
Contactual skills (S10)	4.31
Co-operating, working in a team (S11)	4.47
Independence (S12)	4.60
Initiative, creativity (S13)	4.47
Adaptability (S14)	4.37
Accuracy, carefulness (S15)	4.67

Results

In this section, we apply the model previously developed to the data. In order to find the indirect skill effects, we performed for each skill a separate regression on all the other skills. In table 2, we provide the regression estimates of the parameters of the explanatory skills in the regressions.

The results in the table reveal that from the 210 coefficients estimated, 78 are not significant and therefore not displayed. Twenty coefficients have a negative effect, while 112 coefficients have the expected positive effect. The final column shows that skills that have a cumulative effect on other skills, which is larger than 1 are: Problem-solving skills, independence, oral presentation/speaking skills, accuracy/carefulness, initiative/creativity and contactual skills. According to our criterion defined earlier, these six skills may be considered key skills. When these outcomes are compared to several lists of key skills published in the literature, we find a number of skills that are comparable. A notable exception to this are ICT-skills. While these are often cited as being key skills, our methodology fails to find evidence for this.

Table 2. *Regression estimates of the parameters in the skill regressions*

	s1	s2	s3	s4	s5	s6	s7	s8	s9	s10	s11	s12	s13	s14	s15	γ_i
s1		0.1330	NS	0.4700	-0.0886	NS	0.1230	-0.0577	0.0751	NS	NS	0.0293	NS	NS	0.0436	0.7278
s2	0.0895		0.2570	-0.0438	0.2040	0.0406	NS	NS	NS	0.0399	NS	0.0339	-0.0291	NS	0.0403	0.6324
s3	NS	0.2590		-0.0378	0.1120	0.0787	0.0596	0.1400	0.0477	NS	NS	NS	NS	-0.0315	NS	0.6278
s4	0.4160	-0.0578	-0.0495		0.0524	NS	0.1510	NS	0.0622	NS	NS	NS	NS	0.0348	0.0450	0.6540
s5	-0.0678	0.2290	0.1250	0.0447		0.2890	NS	0.1700	NS	NS	NS	NS	NS	NS	0.0279	0.8178
s6	NS	0.0564	0.1090	NS	0.3570		0.1730	0.0761	NS	0.2090	0.0555	-0.0234	0.0343	0.0312	NS	1.0781
s7	0.1180	NS	0.0840	0.1630	NS	0.1780		0.1270	0.0624	0.0500	0.0609	0.0295	NS	NS	NS	0.8728
s8	-0.0408	NS	0.1470	NS	0.1590	0.0577	0.0942		0.1540	0.0326	-0.0559	NS	0.0774	NS	-0.0407	0.5846
s9	0.1110	NS	0.1040	0.1040	NS	NS	0.0962	0.3220		0.1920	NS	0.0450	0.1040	0.0646	0.0926	1.2355
s10	NS	NS	0.0801	NS	NS	0.3030	0.0708	0.0626	0.1760		0.2300	NS	-0.0386	0.1180	NS	1.0020
s11	NS	NS	NS	NS	NS	0.0721	0.0771	-0.0956	NS	0.2050		0.0357	0.0716	0.1010	0.1060	0.5729
s12	0.0722	0.1240	NS	NS	NS	-0.0618	0.0760	NS	0.0751	NS	0.0726		0.3700	0.2120	0.2540	1.1940
s13	NS	-0.0863	NS	NS	NS	0.0733	NS	0.2180	0.1400	-0.0567	0.1180	0.3000		0.2510	0.1050	1.0624
s14	NS	NS	-0.0791	0.0667	NS	0.0569	NS	NS	0.0744	0.1480	0.1420	0.1460	0.2140		0.1320	0.9009
s15	0.0900	0.1240	NS	0.1050	0.0764	NS	NS	-0.1190	0.1300	NS	0.1810	0.2130	0.1090	0.1610		1.0704

In table 3 below we provide the direct and indirect wage effects from the wage regressions we performed. We also calculate the total indirect effect $\gamma\varphi$.

Table 3. *Direct and indirect wage effects from skills*

Skill	β	φ	γ	$\varphi\gamma$
Professional theoretical knowledge	NS	0.0019	0.72780	0.0014
Understanding of ICT	NS	0.0020	0.63239	0.0013
Understanding of operational management	NS	0.0031	0.62778	0.0019
Putting theoretical knowledge and techniques into practice	NS	0.0027	0.65404	0.0017
Written presentation, writing skills	0.0214	NS	0.81781	NS
Oral presentation, speaking skills	NS	0.0026	1.07806	0.0028
Transfer of knowledge	0.0202	NS	0.87276	NS
Planning, coordinating and organizing activities	0.0238	NS	0.58455	NS
Problem-solving skills	0.0251	NS	1.23552	NS
Contactual skills	NS	0.0023	1.00198	0.0023
Co-operating, working in a team	-0.0192	0.0036	0.57285	0.0021
Independence	-0.0280	0.0041	1.19403	0.0048
Initiative, creativity	-0.0224	0.0039	1.06236	0.0042
Adaptability	-0.0166	0.0036	0.90085	0.0032
Accuracy, carefulness	-0.0294	0.0042	1.07036	0.0045

The table shows that writing skills, transfer of knowledge, planning/coordinating/organizing activities and problem solving skills all have positive direct wage effects of around 2%. In contrast, co-operating/working in a team, independence, initiative/creativity, adaptability, and accuracy/carefulness all have negative direct effects on wages. Column 2 shows that of the 15 skills distinguished, 11 have significant and positive effects on wages in the range of 0.2 – 0.4%. The final column displays the total indirect wage effect from key skills. It reveals that these effects are largest for independence, accuracy/carefulness and initiative/creativity. Since problem-solving skills does not have a significant indirect effect on wages, the total indirect wage effect from this skill cannot be calculated.

Conclusions

This paper has tried to bring some consistency in the debate on key skills. Instead of making political statements by relying on ideas inspired by developments taking place in many workplaces, we have attempted to approach the key skill concept from a quantitative perspective. When key skills are defined as those skills having larger indirect effects on productivity than their direct effects, we may identify them using an economically inspired framework.

When we apply our theory to a sample of graduates, we find six key skills: problem-solving skills, independence, oral presentation/speaking skills, accuracy/carefulness, initiative/creativity and contactual skills. It is comforting that in many lists of key skills, similar aspects are included as being key skills. The often-cited IT skills, as being key in the modern workplace can, however, not be identified as a key skill using our methodology. A shortcoming of our analysis is that we cannot justify the choice of the fifteen skills we used in testing our methodology.

Although the empirical outcomes we obtained are intuitively appealing, our research methodology needs further investigation for adequacy, reliability and validity across countries, types of education and occupations in order to

improve on the methodology for defining and determining key skills. This would imply a significant advance in the usefulness of the debate on key skills and the application of this debate in educational curricula and continuing professional education. When key skills are those skills that make the difference in peoples' careers, more research in this area is also something that HRD in general should be concerned with.

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Critical Thinking in HRD—A Panel Led Discussion

Carole Elliott
Sharon Turnbull
Lancaster University, UK

The critical management studies (CMS) movement in organisational and management theory has gained momentum over the last 10 years. Through a panel discussion the aim of this session is to present what might be the theoretical and practical implications of a similar movement in HRD research and practice. The session will present challenges to the predominantly performative and learning-outcome focus of the HRD field, and will unpack some of the assumptions behind this orientation.

Keywords: Critical Management Studies, Research and Practice, HRD

What has come to be referred to as the critical management studies movement in organisational and management theory has seen a growth in activity over the last 10 years, but has hitherto not been acknowledged by the mainstream HRD community. It is by no means a unified theoretical movement, indeed its raison d'être might be characterised as a refusal to search for theoretical commensurability. Critical management studies (CMS) therefore attracts scholars from a variety of disciplinary and epistemological positions: post-modern, post-structuralist, labour process and post-Marxist schools, as well as feminist and post colonial researchers and those whose critiques are predominantly influenced by the Frankfurt school of critical theory. Ontological differences exist between researchers working within these traditions, but what they do have in common is a concern to challenge disciplines of management that "are generally understood to be devoted to the (scientific) improvement of managerial practice and the functioning of organizations" (Alvesson & Willmott, 1992: 1). CMS by contrast seeks to question "the wisdom of taking the neutrality or virtue of management as self-evident or unproblematical" (ibid). Those who locate themselves within the CMS field emphasise the necessity of questioning the received wisdom of traditional management knowledge and practices given the influence that managers as a social group exercise.

The increasing number of researchers aligning themselves to the CMS movement is demonstrated by the establishment of its own international conference (these took place in Manchester first in 1999, and again in 2001), in addition to specialist streams within the British Academy of Management, and American Academy of Management annual conferences. The ethos of CMS research now receives wider dispersal through a number of post-graduate and post-experience programmes within the management schools of UK universities. For example, for the past nine years, Lancaster University's Management School has run an Mphil/PhD programme in Critical Management.

We are proposing this innovative session for a number of reasons. We are concerned that the methodological traditions that guide the majority of HRD research do not allow researchers to engage in studies that challenge the predominantly performative and learning-outcome focus of the HRD field. We see evidence for this leading publications and journals as well as in the content of ARHD conference proceedings. We seek to unpick the assumptions behind the performative orientation that dominates much HRD research by exploring with researchers, working in a variety of traditions, whether this tradition is conducive to what we perceive is the greatest tension in HRD, the struggle to reconcile the needs of the individual with the needs of the employing organisation. For example, the emancipatory ideal sometimes touched upon by those interested in individuals' aspirations to find spirituality and meaning at work (e.g. Chalofsky, 2001), challenges the performative view. If we indeed are witnessing a turn towards the sacralisation of work by organisations keen to co-opt the creativity and commitment of individual employees to an even greater degree, how does HRD respond to this?

The traditional methodological frameworks utilised by HRD scholars we argue, cannot adequately assess the impact of these moves upon the individual. We therefore perceive the need to open up HRD theory to a broader range of methodological and theoretical perspectives.

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Session description

We propose a debate on the subject of what we will subsequently refer to as critical thinking, within HRD. A number of international panellists (7) chosen for their "critical" orientations will be invited to make a statement (5 minutes each) about what it means to them to think critically in HRD, and what forms of research this might lead to from their individual perspectives. Following this we will open the debate to the floor, where we hope to stimulate a debate from those holding similar or different perspectives. The two Chairs, who will summarise the debate at the end of the session, will manage the debate.

Chairs

Carole Elliott and Sharon Turnbull, Lancaster University, UK

Panellists

Monica Lee – *Lancaster University, UK*; Linda Perriton – *University of York, UK*; Sandra Watson – *Napier University, Edinburgh, UK*; Jim McGoldrick – *University of Abertay, Dundee, UK*; Jonathan Winterton – *ESC Toulouse, France*; John Truty - *Technical Training Manager, M&M MARS INC, USA*.; Dani Truty - *Northern Illinois University*, USA

Purpose

The purpose of the session is threefold:

- to explore what has hitherto largely been ignored in mainstream HRD research. That is the exploration of research questions through 'critical' research frameworks;
- to broaden the constituency of AHRD, so as to give space to the growing body of researchers in the critical tradition who are undertaking HRD research;
- to provide a forum for a healthy and lively debate on new opportunities for HRD research.

Goals

Our goals for the session are:

- to share knowledge, views, and beliefs about the relevance of critical management theory and research to the HRD community;
- to provide a forum for HRD researchers interested in undertaking research in the critical tradition to share ideas for current and future research;
- to set up a network of critical management researchers in the field of HRD;
- to provide a forum for additional levels of theoretical and methodological engagement within the Academy, and to encourage an inclusive spirit.

Content of the Session

The session Chairs will open the session by introducing the historical background and context of critical management studies, what it means to them, and how it has influenced their research in HRD.

This will be followed by personal contributions from each of the panellists about their own understanding of critical thinking and how they see it relating to their research in HRD.

The session Chairs will then open the debate to the floor where contributions from all perspectives will be encouraged. This discussion will be managed by the joint Chairs who will direct questions to the panellists to stimulate a lively debate which raises important issues.

The Chairs will each provide a summary at the conclusion of the debate, noting the issues that have emerged which will be important to consider and carry forward for future debate in the area.

Depending on the number of people attending the session, the session Chairs may decide to divide the audience into a number of smaller groups to ensure that contributions from as many participants as possible are heard, before reconvening for a plenary discussion.

At the end of the session participants will be invited to join a network of critical scholars in HRD within the Academy.

Format and Style

To ensure the format and style is an inclusive one, the room will be arranged to allow the audience to see each other at all times and to engage with the panellists; e.g. in a Ushape formation or equivalent. The style will be constructive and encouraging of diversity, with efforts made by the Chairs to ensure the voices of as many participants as possible are heard. The tone of the session will be set by the diversity of views expressed by the panel, correspondingly we hope that this will encourage contributions from audience participants who hold a wide variety of perspectives that may not necessarily concur with those of the Panel or Chairs.

The debate will be intellectually stimulating, as it will take its cue from panellist's contributions around ontology and epistemology, which we believe will stimulate the ongoing debate about the purpose and values of HRD. It will also recognise and accommodate the diverse views of those scholars from non-conventional and international academic backgrounds, and enable us to discuss the dominant prevailing assumptions in the Academy.

The values held by the Chairs of the session are that the Academy should be inclusive and accommodating of diverse ontological and epistemological perspectives. This means that all research perspectives should be recognised and judged according to their intrinsic value if the HRD community of researchers and practitioners is to grow in its reach and strength. Introducing the 'critical' voice into the Academy is not an attempt to subvert past or current research, but instead to broaden our understanding of the issues that face HRD, and to exchange our diverse views within an intellectually stimulating forum so that we continue to be open to learning from each other.

Structure

Introduction by Chairs:	10 minutes
Panelists' comments:	35 minutes
Debate:	35 minutes
Chairs' summaries:	10 minutes.

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Implementing Management Standards in the UK

Jonathan Winterton
Groupe ESC Toulouse (Toulouse Business School), France

Ruth Winterton
Eldwick Research Associates, Bingley, UK

An increasing number of organisations in the UK are adopting competence and competency frameworks, including Management Standards, to structure management development. This paper reports on a study exploring the implementation of Standards in sixteen organisations, undertaken on behalf of the Inland Revenue and Customs and Excise, where Management Standards were subsequently embedded in those organisations' HRD systems and processes.

Keywords: Management Development, Management Standards, HRD Systems

The authors were commissioned by the Inland Revenue (IR) to undertake a series of case studies investigating the use of standards in management development within organisational contexts. During 2000, the IR and HM Customs & Excise (C&E) had piloted contextualised versions of the Management Standards developed by the Management Charter Initiative (MCI), with a view to their implementation throughout their organisations.

On the recommendation of the Handy Report (Handy *et al*, 1987), the MCI was established in 1988 as the operating arm of the National Forum for Management Education and Development (Constable, 1991). The MCI was recognised as the lead body for management and developed a generic set of occupational standards relating to areas of activity in managers need to be competent (Miller, 1991). Standards were developed for supervisory management (level 3), first line management (level 4) and middle management (level 5). The M3 standards for senior managers, first drafted by MCI in February 1995, focused on strategic issues. As with other occupational standards, functional analysis was used to produce a framework of management competences, from which the occupational standards for managers were developed. The Management Standards were mapped to VQ (NVQ and SVQ) criteria to fit the new framework of vocational qualifications, so the M1S Supervisory Management Standards equate to VQ level 3, while M2 Middle Management Standards equate to VQ level 5.

Like all occupational standards, the Management Standards were developed through functional analysis of management activities in a variety of contexts (Mansfield and Mitchell, 1996). The Standards defined key roles, and in the case of the M1 standards, for example, there were four key management roles:

- manage operations
- manage finance
- manage people
- manage information.

Each key role was broken down into a number of *units of competence*; the 'manage people' role, for example, comprised four units:

- contribute to the recruitment and selection of personnel
- develop teams, individuals and self to enhance performance
- plan, allocate and evaluate work carried out by teams, individuals and self
- create, maintain and enhance effective working relationships.

Each unit was in turn further sub-divided into *elements of competence*; the second of the above units, for example, was broken down into three ele ments:

- develop and improve teams through planning and activities
- identify, review and improve development activities for individuals
- develop oneself with the job role.

For each element of competence, *performance criteria* were defined which form the basis of assessment and *range indicators* were provided for guidance.

The Management Standards were reviewed in 1996 and as a result revised Standards were published in 1997

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(Boutall, 1997). Firstly, the Standards were re-written in a more appropriate and accessible language free from jargon. Secondly, the revision created *two* sets of Standards: the Vocational Qualifications Version relates to individuals as before, while the Business User Version relates to organizations. The two versions constitute an integrated whole in order to promote complementarity between individual and organizational needs for development. A system of core units and options was also introduced in order to make the Standards more flexible and easier to apply in different organizational contexts. Also, in place of the four key roles, there are now seven:

- manage activities
- manage resources
- manage people
- manage information
- manage energy
- manage quality
- manage projects.

Following the demise of MCI, the Institute of Management took over responsibility for maintaining the Management Standards, which are again under revision with a new version to be developed during 2002. While there has been criticism of using generic management standards (Collin, 1989; Otter, 1994) the benefits of using them as a framework for development have been widely acknowledged (Iles, 1993; Mabey and Iles, 1993).

The IR and C&E wished to learn from the good practice of other organisations that had adopted standards, whether the MCI Standards or others, as a framework for management development. Six objectives were agreed with the project management team:

- to analyse current practice in management development;
- to identify pertinent issues for organizations implementing the Management Standards;
- to investigate current trends in the delivery of management development;
- to develop a protocol for undertaking case studies in the use of the Standards;
- to lead the research in five of the organizations to be studied;
- to analyse and report on the findings from the case studies.

In connection with the first three objectives, a literature review was undertaken to identify the key issues relevant to the provision of effective management development and adoption of the Management Standards (Winterton and Winterton, 2000). This paper, based on the final report (Winterton and Winterton, 2001), deals with the final three objectives, so describes the methodology developed for the case studies and draws conclusions from analysing the case study findings.

Theoretical Framework

The literature review established the conceptual framework for the study in relation to both the *competence frameworks* adopted in organisations and the *implementation issues* associated with embedding the standards in HRD systems and processes.

While the MCI Standards have been shown to provide an effective structure for systematically developing managers' *functional competences* and *personal competencies*, in addition managers would need to acquire further competences and competencies. The competence framework proposed was one derived from the 'holistic model of professional competence' (Cheetham and Chivers, 1996; 1998), which had been used to structure an analysis of future management skills needs in an earlier project (Winterton, 2001). Underpinning the development of functional competence and personal competencies, managers need the opportunity to acquire new *cognitive competences* (knowledge and understanding) and over-riding *meta-competencies*, especially the *ability to cope with uncertainty* and *learning to learn*.

In terms of implementation, the literature suggests that a key rationale is the need to improve management performance in a context of profound and uncertain change. A changing environment (the IR is undergoing significant internal restructuring) requires more management development and necessitates that it is more closely focused on organizational strategy. Management development using standards has been shown to be clearly associated with improvements in performance at the levels of individuals, teams and the organization as a whole (Winterton and Winterton, 1999b). Learning processes associated with the development of individuals and teams differ and a learning organization approach was proposed as a means of providing structure to manage these processes and link them with organizational learning. Management standards were seen to offer a unifying framework for such an approach.

Research Questions

The purpose of the cases studies was to explore a range of questions concerning the adoption of management standards in relation to the following four areas:

- *Rationale* for adopting the Standards: why did they do it? What existed before? When and why did they change? Were alternatives considered? What were the main debates? Is (how is) development linked to strategy? Is a competence framework used (in what, since when?) and how does it relate to the Standards?
- *Implementation issues*: how did they do it? How was it decided upon? Outline the planning and development process and the operational details, including design of competence framework. Main obstacles and how they were overcome, what had to be changed, how sceptics were addressed, who was responsible overall, and locally, how it was rolled out.
- *Human resource development issues* implications of adopting the Standards. How training/development needs are established (and if that's changed). Assessment and accreditation of competence, whether voluntary, take up rate etc. How identified needs are met and nature of support available for manager involved, including learning infrastructure, telematics, mentoring and coaching.
- *Post implementation*: how are the Standards viewed (by different parties)? Is their use mandatory (for what)? How is the impact of adopting the Standards being monitored? What performance measures? Who evaluates? What benefits have been identified (development, performance of individuals, teams, organization) and can these be attributed to Standards? Evidence? Overall assessment (was it worthwhile?) Key successes and failures, actual against expected outcomes. Hindsight (what would they do differently - would they do it at all?).

Methodology

The project steering team agreed with the researchers' recommendation that a series of case studies should be undertaken to investigate the use of Standards in management development within organisational contexts. The methodology developed for this study was based on earlier research completed for the Department for Education and Employment and elaborated in Winterton and Winterton (1999). The case study approach adopted closely followed the replication approach to multiple case studies shown in Figure 1 (Yin, Bateman and Moore, 1982).

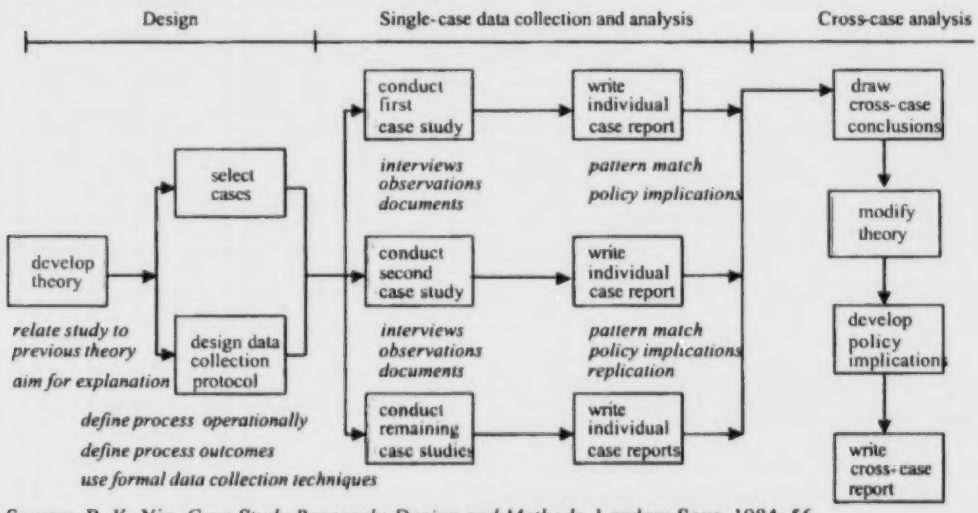
The design for the case study embodied the theoretical and conceptual underpinnings established from a review of the literature and the development stage was concerned with designing the case study protocol and identifying potential cases for study (Yin, 1984: 29-35). The case study protocol included an outline of sources of information to be addressed, the interview schedules and an outline structure for the case reports. Since a team of consultants from the IR and C&E, as well as the authors, undertook the case studies, it was important for all team members to adhere strictly to the protocol in order to facilitate cross-case analysis. Case reports were validated with the organisations and corrected before the cross-case Analysis was completed. In accordance with the terms on which access was agreed with the participating organisations, confidentiality was maintained with respect to individuals and anonymity preserved in relation to organisations.

Cases for study were selected on the basis of the apparent extent of adoption of the Management Standards and the likelihood that they would raise issues that would help inform implementation in the IR and C&E. A list of possible establishments for case study was drawn up following consultation with the IRTO project manager and staff from MCI. The number of cases to include in a multi-case design depends upon whether literal or theoretical replication is involved, the degree of confidence required in the results, and the resources available. For literal replication, the number of cases can range from 2 to 6 or more, the number increasing with the degree of certainty required and decreasing with the extent of difference between rival theories. For theoretical replication, the number of cases also depends upon the complexity of external factors anticipated to influence case study results. On this basis, it was decided that, ideally, a total of 20 establishments should be studied using the agreed protocol. Cases for study were selected on the basis of the apparent extent of adoption of the Management Standards and the likelihood that they would raise issues that would help inform implementation in the IR and C&E.

It was anticipated from earlier experience that the process of securing access would involve protracted negotiation before the organisation agreed to participate, but access proved much less problematic than in previous studies. Two factors probably explain this: the prestige of the IR/C&E as the client organisations and the fact that we were largely investigating implementation issues, rather than evaluating impact, which raises sensitive political issues within organisations. Access was achieved to 16 organisations within the time available for the study, and these represented a range of contexts and degrees of adoption of standards, including both the functional

competences embodied in the MCI Management Standards and personal *competencies* reflecting psychosocial characteristics.

Figure 1. Case study methodology



Source: R. K. Yin, *Case Study Research: Design and Methods*, London: Sage, 1984: 56.

Results and Findings

Findings from the case studies in sixteen organisations on the use of standards in management development are summarised below under the four areas of research questions established above.

Rationale

Respondents were asked a series of questions concerning the rationale within each organisation for introducing Standards and for embedding the Standards in HRD systems and processes.

Respondents in the sixteen organisations were first asked what were the main objectives in adopting the Management Standards. After eliciting unprompted responses from interviewees, a series of prompts was then offered, including such issues as increased management capability or competence; bringing about change; providing a structure for career management or qualifications and employability. The principal objectives in adopting Standards were to introduce statements of good practice using an existing competence framework; to establish a framework for management development; to offer a means of external audit to a national standard; and to support the organisation through a culture change.

Respondents were also asked about the relationship between management development and organisational strategy, the intervening role of appraisal and personal development reviews and the use of competence frameworks in HRD systems and processes. In relation to embedding the Standards, the key issues were developing competence in line with organisational strategy; incorporating competence statements in appraisal systems and personal development plans; and using a competence framework as a point of reference in HRD systems and processes, especially job profiles.

Implementation Issues

Respondents in the organisations were asked how the decision was taken to adopt an approach based on standards, and to outline the strategic planning and development process. The key strategic implementation issues were that senior management involvement and commitment was essential to successful implementation; external consultants were involved in some cases; and introducing competence-based qualifications was a stimulus to gaining commitment to Standards at all levels.

Respondents were also questioned on the operational aspects of implementation, including whether particular

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managers were targeted and if local 'champions' were used. They were also asked to explain how the competence framework or standards employed were selected or designed, including whether any research was undertaken into what other organisations were doing. The main operational implementation issues were that communicating the role of the Standards to all levels of the organisation was essential; few organisations had researched others' experience with the Standards; pilot schemes and local champions had facilitated smoother adoption of the Standards within an organisation.

Human Resource Development Issues

In the sixteen organisations visited, interviewees were asked how the Management Standards (or other competence/competency frameworks employed) related to training and development initiatives. Individuals were asked to explain how training and development needs are established and how competence is assessed or accredited. With respect to competence needs and assessment, the case studies showed: performance and development reviews and training needs analysis are used to identify development needs; self-assessment and 360° feedback against the Standards provides a basis for personal development plans; and that competence assessment need not be linked to qualifications such as NVQs/SVQs.

Respondents in the case study organisations were also asked how development needs identified were met and what support is available for managers involved in training and development. In relation to delivering management development, the main findings were that learning resource centres employing multi-media are widely used to deliver development in the workplace, supported by mentoring. Face-to-face training with internal and external personnel is still widespread, often involving partnerships with Universities; individuals are taking responsibility for their own development through learning contracts and open and flexible learning.

Post Implementation Issues

Respondents in the organisations studied were asked about the use and evaluation of Standards, as well as the impact and benefits of their adoption.

The individuals interviewed were asked about the status of the Standards in the organisations visited, whether their use was mandatory and whether there was any monitoring of the effect of having implemented the Standards. The key issues in the use and evaluation of Standards were that Standards can be used to structure development irrespective of whether the competence-based qualifications are implemented; Standards can be embedded in the HRD systems and processes of organisations without managers being aware of their existence. MCI, and derivative, competence Standards are often combined with behavioural competencies in competence/competency frameworks. Formal evaluation of the use of Standards is very rare.

Respondents in the organisations studied were asked what benefits, if any, had been identified from adopting the Standards and their overall opinion as to their impact. The main successes and difficulties were explored and individuals were asked what they would do differently if starting again. The main impact and benefits of Standards on organisations is in providing a structure and focus for management training and development; the Standards offer a mechanism for establishing a transparent link between organisational strategy and management development. Better-targeted training and development improves management performance and staff retention. Managers are more qualified and flexible in dealing with the changing organisational environment; managers become more objective in reviewing the performance of their staff and in establishing development plans, including their own. Standards raise individual managers' self-confidence, motivation to accept wider responsibility and commitment to learning.

Difficulties encountered included integrating the Standards with existing initiatives and contextualising the Standards to make them appropriate to the specific organisational culture. Equally, there were problems in overcoming resistance to management development by managers who have specialist professional qualifications and in coping with the bureaucracy of competence-based qualifications. If starting again, those responsible would do some things differently, such as, take more time in building senior management commitment and in implementation, allowing individuals to adjust; communicate the objectives and successes more widely; allocate more resources to the programme, especially in support mechanisms.

Conclusions and Recommendations

There are inevitably limitations to the extent that lessons can be extrapolated from the diverse experience of a range of different organisations that can meet the specific needs of other organisations. Bearing in mind these limitations, the project team identified the following lessons as particularly relevant to the IR and C&E.

In relation to *objectives*, it is essential to ensure that the Standards are strategically aligned with business direction so that development supports strategy. The Standards can prepare the ground for cultural change provided they are focused on what the organisation needs for the future. Equally, contextualisation of the Standards is necessary to deliver the business benefits. We recommended that the Standards should be used to help focus and structure training and development within the IR and C&E. Managers should be encouraged to use the Standards in succession planning. The Standards also have implications for the management span, or area of responsibility, and for work organisation and job design.

The *implementation strategy* should build 'ownership' of the Standards within the organisation. It is essential to secure senior management support and involvement and to establish effective communication of the objectives and strategy throughout the organisation. There is value in using 'champions' to promote adoption and publicise good practice. Individuals who are professionally qualified may be reluctant to pursue management development, so must be convinced of the utility of the Standards for benchmarking relevant experience and developing necessary competence.

In *operational* terms, there is an optimum timetable for implementation, which is likely to be organisation-specific. If the process is taken too slowly, it will lose momentum, while if it is taken too fast, the majority will be lost in the process. At optimum speed, momentum is maintained, the majority of people are carried along, and the implementation process is completed within budgetary constraints. Qualifications are not a mandatory part of adopting the Standards for management development and this is an area in which to proceed with caution. Nevertheless, the Standards provide a mechanism and structure for linking the experiential acquisition of competence with further education and continuing professional development.

In *delivering management development*, individuals need support within the organisation to understand that learning will replace taught courses as the primary route for development. The infrastructure necessary for self-managed learning includes both learning resources available locally in the workplace and processes for delivering advice and guidance. Special attention should be applied to coaching (helping managers develop specific competences on-the-job) and mentoring (longer-term advice and guidance from a senior manager).

Evaluating the use of the Standards is important. The adoption of the Standards should not be seen as an 'instant fix' but as part of a journey of continuous improvement with milestones against which progress can be assessed. Nevertheless, there is value in establishing an evaluation strategy early in the process, identifying the evaluation criteria and measures, and adopting a methodology consistent with strategic objectives and within Better Quality Services.

The main *impact and benefits of adopting Standards* should be a greater clarity of role and consistency in standards to which managers work. In turn this clarity and consistency will increase the confidence *of* managers and of the organisations *in* their managers. The Standards can highlight the value of bringing in learning experience from elsewhere, helping to promote a broader view of development, without becoming bogged down on technical detail. As a result, managers should be encouraged to look outward and beyond the immediate context.

There will remain several *questions to be resolved*. It is important to address budgetary issues. The organisations need to commit real resources, time and money, to implementing and embedding the Standards in HRD systems and processes. The organisations will need to decide whether the Standards are to be mandatory for all managers, or to whom they will apply. There is considerable potential to link the Standards with the appraisal system, which raises the question of dealing with individuals who do not demonstrate the necessary competence.

Contribution to New Knowledge in HRD

The research was designed to meet the immediate needs of the client organisations, the IR and C&E, whose senior HR staff wished to be better informed about good practice in management development, especially the use of competence and competency frameworks. In so doing, the research contributed to new knowledge in HRD in relation to theory, methodology and substantive empirical knowledge of relevance to practitioners.

The main theoretical and conceptual contribution of the project is in integrating the apparently competing frameworks centred on functional competence (such as the occupational Management Standards developed by MCI) and psychosocial competency (such as the Hay competency framework). The empirical research showed that in practice, it is both possible and desirable to adopt a combination of competences and competencies, and

demonstrated the utility of the 'holistic model of competence' as a framework for achieving this.

The methodological contributions are threefold. First, the project demonstrates the benefit of using research to inform practice, since the IR and C&E adopted the recommendations in their entirety. Second, the way the research was conducted demonstrates the potential for building links between theory and practice through academics and practitioners working together in a research team. Third, the ease with which access was obtained for the case studies in comparison with previous projects shows the virtue of research being sponsored by prestigious state organisations like the IR and C&E.

So far as the authors are aware, no comparable study has been undertaken of contemporary Standards-based management development, so the results provide new empirically derived substantive knowledge. Moreover, as a checklist of good practice, the empirical findings are of considerable value to practitioners, as has been demonstrated by the adoption of our recommendations in their entirety by the IR and C&E.

The key themes with respect to the objectives in adopting Standards are as follows:

- introducing statements of good practice using an existing competence framework;
- establishing a framework for management development;
- offering a means of external audit to a national standard;
- supporting the organisation through a culture change.

The key issues with respect to embedding Standards are as follows:

- developing competence in line with organisational strategy;
- incorporating competence statements in appraisal systems and personal development plans;
- using a competence framework as a point of reference in HRD systems and processes, especially job profiles.

The key strategic issues in relation to implementation are:

- senior management involvement and commitment was essential to successful implementation;
- external consultants were involved in some cases;
- introducing competence-based qualifications was a stimulus to gaining commitment to Standards at all levels.

The key operational issues in relation to implementation are:

- communicating the role of the Standards to all levels of the organisation is essential;
- few organisations researched others' experience with the Standards;
- pilot schemes and local champions facilitate smoother adoption of the Standards within an organisation.

The key themes in relation to competence needs and assessment are:

- performance and development reviews and training needs analysis are used to identify development needs;
- self-assessment and 360° feedback against the Standards provides a basis for personal development plans;
- competence assessment need not be linked to NVQs.

The major issues in delivering management development are:

- learning resource centres employing multi-media are widely used to deliver development in the workplace, supported by mentoring;
- face-to-face training with internal and external personnel is still widespread, often involving partnerships with Universities;
- individuals are taking responsibility for their own development through learning contracts and open and flexible learning.

The key themes with the use and evaluation of Standards are:

- Standards can be used to structure development irrespective of whether the competence-based qualifications are implemented;
- Standards can be embedded in the HRD systems and processes of organisations without managers being aware of their existence;
- MCI, and derivative, competence Standards are often combined with behavioural competencies in competence/competency frameworks;
- formal evaluation of the use of Standards is very rare.

The key themes in relation to the impact and benefits of Standards are:

- the main impact of Standards on organisations is in providing a structure and focus for management training and development;
- the Standards offer a mechanism for establishing a transparent link between organisational strategy and management development;
- better targeted training and development improves management performance and staff retention;
- managers are more qualified and flexible in dealing with the changing organisational environment;

- managers become more objective in reviewing the performance of their staff and in establishing development plans, including their own;
- Standards raise individual managers' self-confidence, motivation to accept wider responsibility and commitment to learning.

The key difficulties encountered in adopting Standards included:

- integrating the Standards with existing initiatives;
- overcoming resistance to management development by managers who have specialist professional qualifications;
- contextualising the Standards to make them appropriate to the specific organisational culture;
- coping with the bureaucracy of competence-based qualifications.

Among the things that people would do differently if starting again were:

- take more time in building senior management commitment and in implementation, allowing individuals to adjust;
- communicate the objectives and successes more widely;
- allocate more resources to the programme, especially in support mechanisms.

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The Applicability of AHRD Ethics Standards Internationally

Lisa A. Garrett
Gary N. McLean
University of Minnesota

This paper discusses some of the issues related to the applicability of the AHRD Ethics Standards internationally.It summarizes a review of literature on ethics standards and the applicability of those standards across countries. The authors conclude that there is no reason to assume that ethical standards that are applicable in one culture are necessarily applicable in another. From this, they identify issues for further research in the area.

Keywords: International HRD, AHRD Standards, Code of Ethics

The HRD field is becoming more established around the world (McLean & McLean, 2001). As HRD continues to grow and legitimize itself, greater attention has been given to the need for establishing standards for professional behavior. The Academy of Human Resource Development (AHRD) has produced its *Standards on Ethics and Integrity* (*The Standards*) (AHRD, 1999). The intent of these Standards has been to give HRD professionals a common set of values and principles upon which to build their work with integrity.

Although international business and society as a whole should expect ethical behaviors from HRD professionals (Hatcher & Aragon, 2000), is it reasonable to expect professionals from various countries to adhere to a common set of standards? But what are the ethical behaviors that international HRD professionals should practice? Can ethical standards be universally applied? Can the AHRD Standards be applied globally?

Purpose Statement

The purpose of this paper is to explore the research and theory-building literature to inform us about the global application of ethics codes. The concept of ethics in HRD, and the growing recognition of ethics as a developing research issue, demonstrates the importance of ethics in HRD. As businesses face many challenges in their efforts to participate in globalization, HRD will be called upon to use a variety of methods to support those efforts (McLean, 2001). As the HRD profession continues to expand globally, the issue of global ethics becomes one of increasing importance. The intended outcome of this literature review is to build a conceptual framework for further research regarding the extent to which standards developed in one country can be applicable in all other countries.

Theoretical Framework

There is no commonly agreed-upon ethical system or universally agreed-upon way to analyze ethical situations (Hatcher & Aragon, 2000). There are two generally acknowledged theories about ethics: teleological theory and deontological theory. Teleological theory, a consequentialist theory, focuses on the results of an act. The moral value of an action is a function of its consequence. Deontological theory, a nonconsequentialist theory, focuses on the act itself. A deontologist believes that the rightness of an action takes precedence over the consequences of the action. The results are not as important as the nature of the act in question (Bur[illegible]s, Russ-Eft, & Wright, 2001; Hatcher, 2000). We will look for common applications of these two theories in the literature.

Research Questions

This literature review sought to identify the research that has been conducted on the applicability of ethical standards across countries. Specifically, the review was guided by the following questions:

What role does ethics play in the field of HRD?
Can the AHRD *Standards* be applied globally by international HRD professionals?
Should a separate code of ethics be developed for international HRD professionals?

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Methodology

A literature review of research-based articles was conducted. HRD, psychology, international business, and ethics literature was reviewed. The following databases were searched: Educational Resources Information Center (ERIC), ABI Inform, and Business Source Premier. Keywords used in the literature search included: HRD and ethics, international business ethics, business and ethics, professional ethics, cross-cultural HRD, international HRD, and code of ethics. Reference lists of selected articles were examined for additional literature. Along with the AHRD Standards, ethical codes from the following professional organizations were also reviewed: American Psychological Association, Society for Human Resource Management, Organization Development Network, American Evaluation Association, and Organization Development Institute.

Results

The literature review revealed much that contributes to the research questions posed. The review presented here is organized according to the following categories: The *AHRD Standards*, professionalization of HRD, cultural differences in work-related values, cross-cultural HRD, international business ethics, and how other professional organizations utilize their ethics standards in an international setting.

The AHRD Standards

The *Standards* were developed by the Standards on Ethics and Integrity Committee in 1999. The committee consisted of six U.S. members, with Darlene Russ-Eft as chair. The standards were intended to provide guidance for HRD professionals engaged in practice, research, consulting, instruction, facilitation, or teaching. Aspirational in nature, they were intended to provide standards of conduct and set forth a common set of values for HRD professionals (AHRD, 1999).

The General Principles, the first category of the standards, include:

- Competence
- Integrity
- Professional responsibility
- Respect for people's rights and dignity
- Concern for others' welfare
- Social responsibility

A comprehensive list of the *Standards* is shown in Table 1. Each standards category includes a list of its specific standards:

Table 1. *Academy of Human Resource Development Standards on Ethics and Integrity*

Standards
General standards:
Boundaries of competence; maintenance of expertise; basis for research and professional judgments; description of HRD professionals' work; respecting others; nondiscrimination; exploitative relationships; misuse of HRD professionals' work; multiple relationships; consultations and referrals; third party request for services; delegations to and supervision of subordinates; documentation of professional and research work; records and data; fees and financial arrangements; accuracy on reports to payers and funding sources; referrals and fees
Research and evaluation:
Research and evaluation in professional context; data collection; responsibility; compliance with law and standards; institutional approval; informed consent; incentives to participants; deception in research; interpretation and explanation of research and evaluation results
Advertising and other public statements:
Definition of public statements; statements by others; avoidance of false or deceptive statements; media presentations

Publication of work:
Reporting of research and evaluation results; plagiarism; publication credit; duplicate publication of data; release of data; professional reviewers; ownership of intellectual property

Privacy and confidentiality:
Discussions of the limits of confidentiality; protection of confidentiality; maintenance and ownership of records; disclosures; consultations; confidential information in databases; use of confidential information for didactic or other purposes

Teaching and facilitating:
Design, development, implementation, and evaluation of programs; descriptions of programs; accuracy, objectivity, and professionalism in programs; limitation on training and instruction; assessment of performance

Resolution of ethical issues and violations:
Familiarity with ethics; informal resolution of ethical violations; conflicting pressure with organizational demands; improper complaints; resolutions of ethical issues; cooperation with ethics committees

Source: AHRD (1999).

Along with the development of the *Standards*, the committee recognized the need to provide further guidance for researchers and practitioners. A casebook was developed that provided case studies in HRD ethics for further enhancement of the HRD profession. Further details on the cases can be found in Aragon and Hatcher (2001).

Several of the cases in the casebook described ethical issues in international settings. One case described a dilemma involving compensation practices in an organization in Tanzania (Bates, 2001). Other cases referred to illiteracy in Bangladesh and its impact on a research project (McLean, 2001) and the practice of quanxi in China (McLean, 2001).

Professionalization of HRD

The question is now being asked if an aspirational ethics document takes the profession far enough (Ruona & Rusaw, 2001). Aspirational ethical principles provide guidance to professionals for resolving dilemmas and conflicts, in contrast to an enforceable code that implies sanctions for specific acts based on formal judgements (Burns, Russ-Eft, & Wright, 2001). Ruona and Rusaw (2001) believed that the *Standards* play a critical role in helping HRD to develop necessary foundations for professionalization.

As the AHRD pursues professionalism, some have argued that consideration must be given to defining the construct of profession. Burns, Russ-Eft, and Wright (2001) used Wilensky's (1964) five stages to describe the development of professions. Among these stages is: codes of ethics begin to appear (p. 214).

Ruona and Rusaw (2001) defined a profession as including, among others:

- Values
- Standards of Practice and Ethics
- Monitors the practice and its practitioners (p. 223)

Another definition of a profession comes from McConnell (1999). His definition of a profession, based on legal precedents, includes the following attributes:

- A code of ethics imposing standards higher than those normally tolerated in the marketplace
- A disciplinary system for professionals who breach the code
- A primary emphasis on social responsibility over strictly individual gain, and a corresponding duty of its members to behave as members of a disciplined and honorable profession
- A prerequisite of a license prior to admission to practice (p. 92)

Each of the three definitions of profession includes the concept of enforcement and control. Control could be through licensing, monitoring practitioners, or implementing a disciplinary system for those who breach the code. Whichever control method is used, an ethics code is to be used as a control mechanism. If the AHRD were to decide that an aspirational ethics document does not take the profession far enough, an enforceable code, though difficult to develop, would have implications for the practice of HRD, including international HRD.

There has been some focus on the application of the *Standards* in an international setting. Hatcher and Aragon (2000) presented the *Standards* as a generic document that is intended to provide both universal principles and limited decision rules to cover many situations encountered by international HRD professionals. The *Standards*

could be used by international HRD professionals but, according to the authors, not as a stand-alone or all-inclusive guide to ethical behaviors. Each international professional's personal experiences, individual values, and cultural values should be used to interpret, apply and supplement the principles set forth in the *Standards*. Hatcher and Aragon (2000) recognized the following:

> We need more and better dialogue about what the international community of HRD professionals believes (values), what we want the profession to be in the future, and where we are now in regard to that quest. (p. 217)

Cultural Differences in Work-Related Values

A well-known model that illustrates the differences that can exist between cultures is Hofstede's four value-based factors: Power Distance, Individualism, Masculinity, and Uncertainty Avoidance (Hofstede, 1984). He added a fifth factor, Long-Term Orientation, later. These factors have been used widely in analyzing culture, though the model has also received significant criticism because of the research used by Hofstede originally and the evidence that the framework is not valid in all circumstances (Kuchinke, 1999). *Power Distance* is the extent to which the less powerful members of a group or society accept and expect that power is and will be distributed unequally. Bureaucratic societies (such as Latin American countries) are typically higher in Power Distance, while more egalitarian societies (such as the United States) rank lower. *Individualism* is the degree to which group members expect that individuals orient their action for their own benefit rather than for the benefit of the group (Collectivism). The United States is ranked among the highly individualistic societies, while Asian countries are more strongly collectivistic. *Masculinity* is the distribution of gender-role stereotypical behavior. Masculine cultures (such as Mexico) honor assertiveness, aggression, and toughness among its male members while feminine cultures (such as Sweden) reinforce nurturing, caring, and modest behavior among both male and female members. *Uncertainty Avoidance* is the degree to which members of a group are uncomfortable with and avoid change, ambiguity, and uncertainty (Kuchinke, 1999). In countries with strong uncertainty avoidance (such as Germany) there tend to be more and more precise laws than in those with weak uncertainty avoidance (such as the United Kingdom) (Hofstede, 1997).

Jackson (2001) found that, in individualist cultures, ethical decision-making is based on concepts of universal principles of what is right and wrong while in collectivist cultures, it is likely that the decisions will be based on the contingencies of a situation and of maintaining face. In high uncertainty avoidance cultures, such as Germany and France, the level of economic and social regulation is likely to be high and internalized within the community. In low uncertainty avoidance cultures, such as Australia, this acceptance of regulation is likely to be low.

Another factor that can influence ethical practices in countries is the level of corruption that takes place. Transparency International (TI) is a non-government organization that is dedicated to increasing government accountability and curbing both international and national corruption. TI ranks countries each year by a Corruption Perceptions Index (CPI) score. The 2001 CPI shows that almost two-thirds of the countries ranked in the index score less than five out of a clean score of ten (TI, 2001). The CPI serves as an ethical barometer for different national economies. From the data that are gathered in the CPI, there is the assumption that there are ethical and unethical economies (Lee, 2000). The degree of integrity in these economies is measurable and comparable. Those economies that are more developed economically are more ethically developed.

Ethics is a growing concern in international business. The Caux Round Table of business leaders from Europe, Japan, and the United States was founded in 1986 and has established General Principles and Stakeholder Principles as a world standard against which business behavior can be measured (www.cauxroundtable.org).

Several examples of international ethical issues were identified in the literature. In a study of Korean and Japanese business executives, executives occasionally have to make unethical business decisions that conflict with their personal values, because of prevailing business practices (Lee & Yoshihara, 1997). Bribery is still a common practice in some countries (TI, 2001). According to Ryan (1994):

> Presently in most of Central Europe, there is no framework for an ethical system. And whatever system exists or whatever basis for a system is on record, there is almost no system of enforcement. There is both a moral and a legal vacuum. (p. 68)

In a study based on respondents from 10 manufacturing companies in two Western countries and four countries of the former Soviet Union, nationality emerged as the most important predictor of the work-related values that were measured (Kuchinke & Ardichvili, 2001).

Multiculturalism and diversity offer difficult ethical challenges in the international evaluation arena (Bamberger, 1999). In many countries, gender issues do not have a high priority. The concept of stakeholder is seen

in some cultures as promoting conflict and challenging the traditional goal of consensus building. There is often resistance to the intervention of international agencies in what are considered religious or culturally sensitive areas.

Cross-Cultural HRD and Ethics

Although several sources were found regarding cross-cultural or international HRD, literature that dealt with the topic of international HRD and ethics was scarce. In reviewing a comprehensive annotated bibliography of over 150 articles related to international organization development (OD) appearing over the life of the *Organization Development Journal,* only two articles were about the specific topic of ethics (Strøyberg, 2000). One article (Ryan, 1994) described the increasing attention given to business ethics in East Central Europe and Russia and in the former USSR Republics. The other article (Johnson & Wolfe, 1996) discussed global integrity ethics and the challenges for the field of organization development.

The literature reflected a recognition of cross-cultural differences in the practice of HRD but not in the specific area of ethics. HRD researchers and practitioners have some knowledge of international HRD but that knowledge is still in its infancy (Peterson, 1997). Hansen and Brooks (1994) recognized that organizations are increasingly operating within a global context and that HRD professionals are being challenged to examine the transferability of their efforts. In their review of cross-cultural HRD research, they found that HRD roles are interpreted differently in different cultures.

International Business Ethics

The topic of business ethics has received much attention in recent years. Academics and practitioners from the European community have also become more concerned with issues of business ethics (Buller & Kohls, 1997). Several articles in the literature dealt with the issue of addressing cross-cultural ethical conflicts in multinational corporations (Barker & Cobb, 2000; Kapstein, 2001; Payne, Raiborn, & Askvik, 1997). There has been a proliferation of MNCs since the end of World War II but an awareness of cultural and ethical differences has developed only recently. Barker and Cobb (2000) made the conclusion that consideration of ethical and cultural differences is necessary and MNC's must accommodate the differences when developing a code of ethical standards that will apply to business practices at home and abroad.

Establishing an ethical culture requires special effort. International agreements between companies are very difficult to establish and time-consuming. Once agreements are defined, international law makes noncompliance difficult to enforce (Payne, Raiborn, & Askvik, 1997). Those who wish to establish ethical codes need to reconcile their aspirations with the fact that most nations do not generally share common laws or regulations on labor rights and the environment (Kapstein, 2001). The vast differences in culture generate a host of managerial issues, including ethical ones, such as avoiding ethnocentrism and recognizing that no one culture is better as a matter of course than any other culture (Payne, Raiborn, & Askvik, 1997).

Several articles have argued in favor of building a code of ethics for international business. Wederspahn (1997) argued that having written ethical guidelines will help U.S. corporations walk the fine line between the requirements of the Foreign Corrupt Practices Act and the realities of local business culture. For a code to be applicable to any business and in any country or culture, it should consider ethical, cultural, and managerial issues (Payne, Raiborn, & Askvik, 1997). In general, a single set of ethics for a company is preferable, but it may be impossible to do. According to Smeltzer and Jennings (1998):

> A company with two sets of values, one for domestic business and another for international business, is a company headed for ethical crisis...It is not an issue of how a firm does business in each country, it is a question of *whether* a firm does business in each country. (p. 63)

Schwartz (2000) protested against the usage of ethical codes by business organizations. Business organizations should strive to create an environment where employees are comfortable and free to do what they believe is the right thing to do. If the task of business ethics is to facilitate a consensus as to what is right or wrong, one must question the validity of ethical codes since there is no evidence such a consensus exists.

Professional Organizations and Codes of Ethics

Having a code of professional conduct is one part of the self-regulatory efforts of professional organizations. Relatively little research has been done on professional codes of ethics (Wiley, 2000). In Wiley's study of ethical standards for human resource management professionals, similar characteristics were found among the codes, which led to one conclusion that a unified code for the HR profession could be reasonably derived and would be beneficial. No discussion occurred regarding the application of these ethics in international settings.

Several professional organizations' ethical codes were reviewed to identify what considerations or statements were made in regards to international ethics and the applicability of the ethical codes. The organizations' codes examined were those of the Society for Human Resource Management (SHRM), American Evaluation Association (AEA), Organization Development Network (ODN), Organization Development Institute(ODI), and American Psychological Association (APA).

The *SHRM Code of Ethical and Professional Standards in Human Resource Management* (1989) is meant to be a useful tool applicable to the global HR profession as a whole, setting standards to which all members can aspire. Members of SHRM must abide by the code (SHRM, 1989). A statement is made that it is understood that the code is primarily U.S. centric, but the hope is that it is written in such a way that HR professionals anywhere will find it helpful in their daily professional lives. SHRM members are expected to adhere to the code.

In the *AEA's Guiding Principles for Evaluators* (1994), the following statement is made:

> These principles were developed in the context of Western cultures, particularly the United States, and so may reflect the experiences of that context. The relevance of these principles may vary across other cultures, and across subcultures within the United States. (p. 3)

The development of the *Organization and Human Systems Development Credo* of the Organization Development Network involved the participation of more than 600 people from 25 countries (OD Network, 1996). The credo is a working statement. One issue currently under discussion is whether or not it is appropriate to aspire to becoming a global professional community (p. 2).

The International Organization Development Code of Ethics (OD Institute, 1991) was supported unanimously by participants at the 1984 O.D. World Congress in Southampton, England. More than 200 people from over 15 countries participated in the process that produced the statement. A statement made in the notes of the document states:

> By providing a common reference for O.D. professionals throughout the world, we seek to enhance our sense of identity as a global professional community. Because this statement was initially developed within the United States, adapting it to other cultures has been necessary. (p. 3)

The APA's *Ethical Principles of Psychologists and Code of Conduct* does not refer to any international applicability (APA, 1992). Although the other organizations' ethical codes are aspirational, the APA's specific Ethical Standards set forth enforceable rules for psychologist conduct. Membership in the APA commits members to adhere to the APA Ethics Code. Psychologists and students who are not APA members are cautioned to be aware that the Ethics Code may be applied to them by state psychology boards, courts, or other public bodies.

Discussion and Recommendations

The results of this review support the need for more research in this area. Although applications of deontological theory were present in the various professional organization standards, we have been unable to identify any research that specifically looked at whether ethics standards developed in one country (U. S. A.) can be applicable in other countries. According to Peterson (1997), HRD researchers and practitioners have some knowledge of international HRD, but that knowledge is still in its infancy and is based on theories and interventions that may come from an ethnocentric U.S. base. Because organizations are increasingly operating within a global context, HRD professionals are challenged to examine the transferability of their efforts (Hanson & Brooks, 1994). It is our belief that this challenge extends to the transferability of ethical standards.

We propose to continue the research in this area by conducting a study on the applicability of the standards to international HRD practice. In this proposed study we will gather data from international AHRD members. This study will compliment the current work being done by the Standards on Ethics and Integrity Committee (communication with committee member Steven Aragon, 2001).

Contributions to HRD Knowledge

This literature review contributed to new knowledge in HRD by examining the applicability of the major research organization for HRD (AHRD) and its work on ethics in international settings. This study provides a deeper understanding of the issues surrounding ethical standards and their applicability in international settings. As globalization and the practice of ethical standards continues to influence the practice of HRD, this paper opens new avenues for research, particularly in the area of applicability of ethical standards.

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Nature and Impact of ISO Certification on Training and Development Activities on Singapore Organizations

Hesan A. Quazi
Nanyang Technological University

Ronald L. Jacobs
The Ohio State University

Examined the impact of ISO 9001/9002 certification on training and development activities of organizations in Singapore. Nature and extent of HRD activities three years before and three years after ISO certification were requested. They were also asked to indicate whether the changes, if any, were due to the certification only or other reasons. Significant changes in HRD activities were reported in manufacturing organizations.

Keywords: ISO 9000, Training and Development, Singapore

The ISO 9000 family of international standards and guidelines has earned a global reputation as the basis for establishing quality management systems. The success of these standards is still growing and the number of countries where ISO 9000 is being implemented has increased. By the end of December 1999, it has been reported that at least 343,643 ISO 9000 certificates had been awarded in 150 countries (ISO, 1999). The trend of the number of organizations seeking certification has continued to increase from that time. By following the ISO 9000 standards, companies can discover what makes them successful and then they can document this information into formalized processes and procedures. Improved documentation, positive cultural impact, higher perceived quality and faster development time are some of the advantages of ISO 9000 certification. ISO certification has also been used as a marketing tool to open up new markets beyond the traditional sphere of influence. Some quality and productivity-related benefits of such certification include an improvement in on-time delivery and reduction in the cycle time, error rates and test/inspection procedures (Taormina, 1996).

One of the key elements in the ISO 9001/9002 (1994) standards is clause 4.18 – Training. The clause describes the minimum training and experience requirements of an organization. It requires that the organization train new employees and all personnel whose work affect quality. The aim is to continually improve training programs to enable employees to handle changes in the global marketplace and be updated with the latest technology advances (Taormina, 1996). The standard requires that the need for training of personnel should be identified and a method for providing that training should be established. Further, consideration should be given to providing training to all levels of personnel within the organization. The standard also emphasizes that particular attention should be given to the selection and training of recruited personnel and personnel transferred to the new assignments (ISO 9004).

In spite of the successes of ISO, however, there remain issues in regard to its implementation and use. For one thing, it has been argued that ISO 9000 breeds inflexibility in organizations (Taormina, 1996). In practice, whenever standards are commonly recognized across an organization, it makes whatever future revisions to the standards all the more difficult to accomplish. In a related sense, ISO might have the effect of stifling creativity among employees who are expected to take ownership of their own processes. Once the standards become institutionalised, employees may be uncertain of the wisdom of changing something that has been widely accepted. Finally, becoming certified and adhering to the ISO standards simply requires a high investment of organizational time, effort, and resources. Indeed, some organizations have balked at using ISO simply because of the expected expenses involved seemed greater than the expected benefits. In addition, ISO inevitably affects all aspects of the organization, including the training and human resource development activities, which may not be altogether anticipated. In this sense, ISO may have as much impact on its support activities as those considered to be primary to the organization's reason for being in business.

The purpose of this study was to determine the extent to which ISO 9000 certification has impacted training and human resource development activities of organizations in Singapore. Specifically, the following research questions were addressed:

1. To what extent does ISO 9000 certification affect the conduct of training needs analysis?
2. To what extent does ISO 9000 certification affect the conduct of training design?
3. To what extent does ISO 9000 certification affect the conduct of training delivery methods?
4. To what extent does ISO 9000 certification affect the conduct of training evaluation?
5. To what extent does ISO 9000 certification affect the conduct of HRD activities in general?

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These research questions were derived since they represent the basic phases of the systems approach of training design (O'Connor, Bronner, & Delaney 1996). For the study, training needs analysis was considered as determining what training subjects are essential and to help identify those employees who are in need of the training. Training design was defined as the creation of an intervention or training effort targeted at addressing the problem identified. Examples of such activities might include curriculum development, course design, computer-aided design and the development of learning aids or materials. Training delivery was defined as the means to communicate the training information to the employees, including the selection and deployment of the media, methods, and arrangement of the facilities. Training evaluation was defined as the systematic process of determining the effects of the training on learning and business performance.

Literature Review

In a study conducted by Elmuti and Kathawala (1997), in two manufacturing plants, one ISO 9000 certified and the other non-ISO 9000 certified, owned by a large corporation in the United States it was found that the ISO 9000 quality program improved the participants' quality of work life. In addition, there was a positive impact on employee productivity and export sales. A follow-up interview with the management of the corporation indicated that ISO 9000 supported the organisational objectives of productivity, quality of products, increased export sales, and quality of work life.

Chittenden, Poutziouris, and Muhktar (1998-99) investigated the differences between the characteristics of small firms in the United Kingdom which were ISO 9000 registered and unregistered, the motivation for and against registration and the experience of the costs, benefits, and value added of the ISO 9000. It was found that the firms, which adopted ISO 9000 tended to be large, multi-product and manufacturing based. These firms had customers that were larger than themselves or from government departments. These firms also had a formal management structure. On the other hand, the firms, that did not adopt ISO 9000, tended to be smaller businesses that dealt with domestic customers and serving the local market. They also had no formal management structure and were usually personalised by the business owner. The study concluded that a high majority of ISO 9000 users felt that the advantages of using ISO 9000 outweighed the disadvantages. Manufacturing firms that implemented ISO 9000 were primarily motivated by the desire to improve internal processes while small firms were motivated by marketing and competitive advantages.

Research on small businesses conducted by McAdam and McKeown (1999), in Northern Ireland showed that both ISO 9000 and Total Quality Management (TQM) resulted in benefits. The benefits derived from ISO 9000 were better control of business, increased sales/business, reduced costs, increased productivity and fewer customer complaints. TQM resulted in benefits such as increased sales/business, reduced scrap/waste, increased profits, fewer customer complaints, increased customer satisfaction, increased workforce morale/skills, increased productivity and cost reductions. The businesses that were gaining most from TQM had started with ISO 9000 and focused on external measures (e.g. customer satisfaction, etc.) as well as internal measures (scrap, efficiency, etc.). They also had full management commitment, high levels of employee participation and training.

Sun (1999) found that in Norwegian companies, implementation (or certification) of the ISO 9000 standards was significantly correlated with the results, especially the reduction of bad quality products and customer complaints, and business performance such as profitability and productivity. However, the ISO 9000 certification had little influence on market position and competitiveness, and no influence on employee satisfaction and environment protection. Anderson Anderson, Daly, and Johnson (1999) found that manufacturing firms in North America adopted ISO 9000 as a means to provide credible signals of quality assurance to external parties. ISO 9000 complements rather than substitutes Total Quality Management. In addition, ISO 9000 was adopted as a tool in a larger strategy of achieving competitive advantage through quality management and communicating quality results. For most firms, complying with customer or regulatory requirements appeared to be a secondary consideration.

In Singapore, Quazi and Padibjo (1998) identified the perceived benefits and barriers to the ISO 9000 quality system. The benefits that were identified by the ISO 9000 certified companies included - an increased customer preference, improved company quality image and competitiveness in the market, compliance to customer requirement, streamlined procedures and documentation, increased consciousness for preventive and corrective actions, and provision of a foundation in the pursuit of TQM. The study also found that ISO 9000 certification provided a stepping stone toward TQM practices.

Despite the benefits, there were numerous barriers that were faced by the SMEs which included high cost of implementation, lack of full commitment and participation of top management, lack of financial and human resources, employee resistance, no perceived advantage in certification of the service industry, and that proper training and education of employees could not be ensured (Quazi and Padibjo: 1998). Simons and White (1999) conducted a study in North America on 63 ISO 9000 certified and 63 non-ISO 9000 certified companies in the electronics industry. The study did not support the claims that ISO certified companies help realise the

advantages in operational performance over non-ISO certified companies. An empirical study in New Zealand on manufacturing companies found that smaller companies (with fewer than 100 employees), when compared to the larger companies, are more likely to implement ISO 9000 because of external factors rather than internal factors. They also showed less understanding of the relationship between ISO 9000 and TQM, which resulted in implementing ISO 9000 only, and had little intention of extending their quality programs further. They found the small companies to be less likely to implement a TQM program compared to large ones and were likely to stop after implementing one ISO program. Further, large companies appeared to be more likely to use ISO 9000 as a precursor to TQM, whereas small companies were satisfied with ISO 9000 accreditation (Lee & Palmer, 1999). Wiele and Brown (1997-1998) in a study of organizations with less than 250 employees in Australia found that most SMEs seemingly felt forced to go for ISO 9000 certification and did not move further down the quality path. One of the driving forces for a company to move forward to develop a quality management system comes from customers and they might force the SMEs to go for ISO 9000 certification and only a very few of them will be converted into quality believers and will move forward on the TQM journey. Goh and Ridgway (1994) reported a very similar finding on SMEs in the UK. The study revealed that the ISO 9000 certification was the end-point in the quality journey of the sample companies.

In summary, it has been reported that ISO 9000 certification has resulted in both positive and negative impacts on organizational performance. Specific benefits that have been reported through various studies are- improved quality of work life, increased customer preference, improved company quality image and competitiveness in the marketplace, higher productivity and export sales, better control of business, reduced costs, fewer customer complaints, streamlined procedures and documentation, increased consciousness for preventive & corrective actions and the like. On the other hand, some studies indicated that ISO 9000 certified companies did not realize advantages in operational performance and foreign sales over non-certified companies. Clause 4.18 of ISO 9001 requires that the certifying companies establish and maintain documented procedures for identifying training needs and provide for training of all personnel performing activities affecting quality.

Although requirements of all the ISO 9000 clauses are important for the quality management system, it can be argued that employee training is critical for the achievement of the benefits discussed above. In support, a number of studies have shown the relationship between training and business performance (Jacobs, 1994; Jacobs, Jones, & Neil, 1992; Robinson and Robinson, 1989). McAdam and McKeown (1999) found that for the achievement of customer satisfaction, scrap reduction and improvement of efficiency, full management commitment and high level of employee participation & training were present. Quazi and Padibjo (1998) also reported that lack of proper training and education of employees was one of the barriers to the achievement of ISO 9000 certification.

However, from the literature review presented above it is noted that no study has yet investigated into the nature, extent and impact of training on the benefits accrued through ISO 9000 certification. The objective of the present study is to explore the impact of ISO 9000 certification on the nature and extent of training activities of the certified companies.

Methodology

A survey research methodology was used for the study. A questionnaire was developed to address the questions. Primarily a 5- point Likert type scale was used to capture the HRD related information on "before" and "after" the ISO 9000 certification. The companies were asked to indicate the nature and extent of their training and human resource development activities three years prior to certification and three years after the certification.

They were also asked to indicate the possible reasons for such changes. The questionnaire was pre-tested with three ISO 9000 certified organizations and two researchers knowledgeable in the field. These respondents were requested to comment on the content as well as the clarity of the questionnaire. The questionnaire items were amended as per the comments received during the pre-test.

The final version of the questionnaire was mailed or faxed to 177 ISO 9000 certified companies in Singapore and was addressed to the Management Representative of ISO 9000 program, HR manager, or other executive that senior management deemed suitable to respond. To improve the response rate follow-up calls were made two weeks after the questionnaires were sent out.

Results

One hundred seventy seven (177) questionnaires were sent out and 33 (18.6%) valid responses were received back. Of these responses, 28 were useable for the data analysis. The final sample consists of 19 companies from the manufacturing sector and nine from the non-manufacturing sector. In all, manufacturing companies make up 68 percent of the sample. Among them, 17 were privately owned (89.5 percent), while foreign

companies wholly owned the remaining two companies. A majority of the manufacturing companies (52.6 percent) had a turnover of between S$10.0 million to less than S$50.0 million in 1997, as compared to 11.1 percent for non-manufacturing companies in the sample. Four manufacturing companies reported having turnover over of S$100.0 million (21.1 percent). No non-manufacturing company reported the same level of turnover for that period. About 53 percent of the manufacturing companies and 56 percent of non-manufacturing companies reported having less than S$15 million in total fixed assets in 1997.

Among the 19 manufacturing companies, 17 (89.5 percent) were certified in the ISO 9002 standard. The percentage of non-manufacturing companies certified in the ISO 9002 standard was nearly the same (88.9 percent). The remainder of the sample companies were ISO 9001 certified. About 63 percent of the manufacturing companies and 78 percent of the non-manufacturing companies had hired a consultant to assist them in getting certified. About 21 percent of the manufacturing companies and 44 percent of non-manufacturing companies took about six months to receive certification, and 47 percent of the manufacturing companies and 66 percent of the non-manufacturing companies took about one year. In the non-manufacturing companies, the largest proportion (56%) of the employees reported to have secondary level education followed by tertiary level (18%). However, in the manufacturing companies about 38% of the employees have primary level education followed by secondary (32%) and then tertiary level (16%).

Impact Of ISO 9000 Certification On Training Needs Analysis

From the result of the t-test on the total sample it could be concluded that there was a significant increase in TNA after ISO 9000 certification (p= .00). Similar significant findings were found in the manufacturing sector (p=.001). The non-manufacturing sector was not significant (p=.247).

Impact of ISO certification on Training Design

The result of the paired t-test on the total sample indicated that that there was a significant increase in Training Design activities after ISO 9000 certification (p=.00). A similar significant impact was found in the case of the manufacturing sector (p=.00). However, the result indicated otherwise in the case of non-manufacturing sector (p=.53).

Impact Of ISO Certification On Training Delivery Methods

Seven indicators were used to measure the impact of ISO 9000 certification on Training Delivery Methods. When t-tests were conducted on the total sample, it was found that the ISO 9000 certification did have significant impact on each of the training delivery indicators (the *p* values ranged from .00 to .017) and therefore, the null hypothesis was rejected. Similar result was obtained in the case of the manufacturing sector (the *p* values ranged from .00 to .004). However, as in the earlier cases, no significant differences were found in the case of the non-manufacturing companies (the *p* values ranged from .104 to .622).

Impact Of ISO 9000 Certification On Training Evaluation

Four indicators were used to measure the impact of ISO 9000 certification on training evaluation. When t-tests were conducted on the total sample, they were found to have significant positive impact on training (p- values ranging from 0.000 to 0.002). Similar result was obtained in the case of the manufacturing sector (*p* values ranged from .00 to .006). However, as in the earlier cases, no significant differences were found in the case of the non-manufacturing companies (*p* values ranged from .104 to .447).

Impact Of ISO 9000 Certification On Human Resource Development Activities

Five indicators were used to measure the impact of ISO 9000 certification on human resource development:

- Average number of training hours per employee per year
- Average training hours per employee per year for different types of training
- Average percentage of payroll dollar spent on training
- Types of training provided in organizations
- Perceived benefits of ISO 9000 certification

When t-tests were conducted on the sample, the ISO 9000 certification showed significant impact on overall HRD activities (the *p* values ranged from .00 to .003). A similar result was obtained in the case of the

manufacturing sector (the *p* values ranged from .0 to .003). However, as in the earlier cases, no significant differences were found in the case of the non-manufacturing companies.

The sample companies reported an increase in the total training hours per employee per year at all levels of employees (that is, executives, mid-level managers, supervisors and front-line employees). Middle level managers and executives had the largest increase with 80.6 percent and 77.7 percent respectively. The aggregate change for manufacturing companies showed an increase of 67.7 percent. In case of non-manufacturing companies the results were different from those of the manufacturing sector. Training hours increased by 31 percent and three percent respectively in case of the front-line employees and mid-level managers. The hours declined in case of the executives and the supervisors. The combined sample however, showed increase in all levels of employees ranging between 27 percent and 50 percent. When the respondents were asked to indicate the possible reasons for such changes, about 43 percent of them indicated that the change was due to the implementation of ISO 9000 standard only. However, 39 percent said that the change was due to the shift of company policy other than ISO 9000 certification. The opinion varied between manufacturing and non-manufacturing.

In the manufacturing sector, average training hours per employee per year for different types of training increased for most categories of employees and for most types of training except for Technical Training and Production & Engineering. In both of these instances, the hours decreased for the supervisory staff and the front line employees. In the case of non-manufacturing, average training hours increased for most categories of employees and for most types of training except for technical training and product and quality training. In these two categories the hours either decreased or remained unchanged except for technical training for middle level managers, which went up by ten percent. Mixed result is observed when all the samples were considered together.

When the respondents were asked to indicate the reasons for the change in average training hours per employee per year for different types of training, 61 percent of the total sample indicated the change was due to the implementation of ISO 9000 Standard only whereas, another 25 percent stated that the changes were due to change of company policy other than ISO 9000 certification. Only seven percent indicated that the change in PSB/SDF incentive programs were the reason for such outcome. The opinion of the respondents varied between the manufacturing and service sector.

In the manufacturing sector, there was slight increase in average percentage payroll amount spent on training in the case of mid-level managers (0.1 percent) and the supervisors (0.4 percent). However, the amount spent declined in the case of the executives by about two percent but there was no change for the front-line employees. The picture in the non-manufacturing sector was however different from that of the manufacturing where the average percentage payroll amount spent on training increased for all categories of employees by between 2.5 percent to 3 percent.

When the respondents were asked to indicate the reasons for change in the percentage of payroll spent for training, 57 percent of the total sample indicated the change was due to the implementation of ISO 9000 Standard only whereas, another 18 percent stated that the changes were due to change of company policy other than ISO 9000 certification. The opinion of the respondents varied between the manufacturing and service sector. For example, 47 and 78 percent of the manufacturing and service organizations respectively indicated that the reason for the change was due to ISO 9000 certification.

During the implementation of the standard 95 percent of the manufacturing companies provided some form of ISO 9000 training for their executives. For non-manufacturing, 89 percent of the companies provided such training. All the responding companies did provide such training for their middle level managers. More than 90 percent (manufacturing 95 percent, non-manufacturing 100 percent) of the sample companies provided awareness training for their supervisory level employees. In case of the front line employees, 68 percent of the manufacturing and 100 percent of the non-manufacturing companies provided such training. Less than two-thirds of manufacturing companies (63.2 percent) and 100 percent of the non-manufacturing companies reported having their employees trained as 'Lead Auditor'. About 95 percent of the manufacturing companies and 89 percent of the non-manufacturing companies provided Internal Auditor training to its employees.

The respondents were asked to rate a number of statements regarding the possible advantages of ISO 9000 certification on a 5-point Likert-type scale (1= strongly disagree and 5=strongly agree). The statements were on training and development, competitive position, customer relationship, quality of products and services, training related record management, and on-the-job-training. The summary of the findings is reported below:

Training And Development. Based on the overall sample, 50 percent either agreed or strongly agreed that ISO certification helped improve their training and development processes. About 32 percent were undecided and the rest 18 percent disagreed with the statement. About 53 percent of the manufacturing and 44 percent of service organizations either agreed or strongly agreed with the statement. About 11 percent and 33 percent of the manufacturing and non-manufacturing respectively disagreed.

Competitive Position. Majority of the overall sample (83 percent) agreed or strongly agreed that ISO 9000 certification improved their competitive position, 14 percent were undecided and 2 percent disagreed. About 95 percent of the manufacturing and 56 percent of non-manufacturing organizations agreed with the statement.

Relationship With Customers. More than 90 percent of the respondents either agreed or strongly agreed that ISO 9000 certification improved relationship with their customers and only 7 percent were undecided. About 79 percent of the manufacturing and 100 percent of the non-manufacturing organizations agreed with the statement.

Quality Of Products And Services. Ninety-five percent of the sample organizations either agreed or strongly agreed that the ISO 9000 certification helped improve the quality of their products & services and the rest were undecided. All the manufacturing companies and about 78 percent of the non-manufacturing companies agreed with the statement.

Training-Related Records Management. About 75 percent of the sample either agreed or strongly agreed that ISO 9000 certification improved training-related records management, 21 percent were undecided and the rest four percent disagreed. About 79 percent of the manufacturing and 66 percent of non-manufacturing companies agreed with the statement.

On-The-Job Training. Only 65 of the organizations felt that ISO 9000 certification improved on-the job-training program and the rest 40 percent were undecided. About 69 percent of the manufacturing and 44 percent non-manufacturing companies agreed with the statement.

Summary and Discussion

In summary, from the results presented, a consistent pattern emerged. For all the five research questions significant improvements in training needs analysis, training design, training delivery, training evaluation, and human resource development activities were reported by the manufacturing organization but not in the case of the service organizations. In case of the manufacturing organizations, average training hours had increased for all types of employees whereas, for the service organizations the result was mixed. Slightly less than 50 percent of the respondents agreed or strongly agreed that the increase was due to the ISO 9000 certification. When probed into the different types of training, it was found that the average training hours for various types of training had gone up for both manufacturing and service sectors. About 60 percent of the respondents agreed or strongly agreed that the improvements were due to ISO certification.

Average percent of payroll amount spent also increased in both manufacturing and service sectors with the exception in the case of executives in the manufacturing. More than fifty percent (57 percent) of the respondents agreed or strongly agreed that the increase was attributable to the ISO certification.

Most of the sample organizations provided awareness training for all levels of their employees. 'Lead Auditor' training was provided by majority of these organizations. However, there was relatively less proportion of organizations (63 percent) in the manufacturing sector that provided 'Lead Auditor' training compared to the service sector (100%).

More than 75 percent of the respondents agreed or strongly agreed that ISO certification resulted in improved competitiveness, improved relationship with customers, improvement of quality of products and services and improvement in training related records. However, only 50 percent of the respondents agreed or strongly agreed that the certification helped improve the training and development process.

Significant improvements in training needs analysis, training design and delivery, training evaluation and HRD activities were reported in the manufacturing organizations. However, no such improvements were found in the service sector. Also there is some degree of agreement among the respondents that the improvements in the average training hours per employee and average percentage of payroll amount spent for training in the sample organizations were the outcome of ISO 9000 certification. Besides training related activities, the respondents also indicated that ISO 9000 certification helped their organizations derive benefits in a number of aspects i.e., improved competitiveness, improved relationship with customers, improved quality of products and services and improved management of training records.

McAdam and McKeown (1999), Sun (1999) and Quazi and Padibjo (1998) reported that ISO 9000 certification helped improve relationship with customers, comply to customer requirements and reduce customer complaints which are in line with the finding of this study where 90 percent of the respondents agreed that such certification help improve relationship with customers. Findings of this study regarding the positive impact of ISO 9000 certification on competitive position correspond with those of Anderson et al.(1999) and Quazi and Padibjo (1998). However, this finding is in contradiction with that of Sun (1999) who argues that ISO 9000 certification has little influence on market position and competitiveness.

Finding of Quazi and Padibjo (1998) on improved training related records is similar to that of the present study. This is to be noted that improved management of quality records is one of the primary benefits of ISO 9000 certification and therefore, the finding is in consonance with the objective of the certification. Although McAdam and McKeown (1999) reported that the ISO 9000 certified companies had high levels of training activities but that does not necessarily mean that such activities have gone up as a result of ISO 9000 certification. Quazi and Padibjo (1998) on the other hand reported that lack of training of the employees was one of the barriers to ISO 9000 certification. However, findings of this study clearly indicate that such certification did help improve the training and human resource development activities of the responding organizations. Furthermore, between 40-60 percent respondents agreed that the average hours of training per employee per year and average percentage payroll amount spent on training had increased due to the ISO 9000 certification.

The finding of this study indicate that ISO certification help improve the quality of the products and services. Although ISO 9000 standard does not directly address the quality of the products and services, quality improvement may be the outcome of a well-managed system. According to Dalfonso (1995) the ISO 9000 standard is to produce a quality system within an organization which enables it to improve the way it currently does business, focus resources, document its processes, improve its customer relationship and satisfy customers and be involved in quality improvement. The quality system induces the management and employees to consciously trying to improve the quality of its products and services. Therefore, the finding of this study is consistent with the objective of the standard.

The manufacturing organizations showed significant improvements in all five phases of the systems approach when compared the levels of such activities between three years prior to and three years after the certification. In the case of service organizations, no significant differences were found. As no earlier studies reported any findings on this particular issue, it is not possible to specifically comment on the reasons for such result. The only possible reason that could explain the findings is that the sample size of the service organization in the sample was very small (N=9) and as such it may have affected the outcome of the statistical tests performed. Furthermore, the size of the organizations may have played a role in the kind of results obtained. A good discussion on the impact of ISO 9000 and organizational size could be found in Lee and Palmer (1999), Wiele and Brown (197-1998), Goh and Ridgway (1994) and Quazi et al. (in press). Due to the small sample size in this study no analysis using the organizational size and other related variables was attempted. Further studies in different countries with larger samples are suggested for the purpose of generalization of the results reported in this research.

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Applying Client and Consultant Generated Metaphors in HRD: Lessons from Psychotherapy

Darren Short
Perspectives, UK

The metaphors we use shine a torch on how we perceive situations. For decades, some psychotherapists have used their own metaphors and he metaphoric language of their clients as part of a process to understand and transform behavior. This paper provides an overview of some of those techniques and an initial reaction to how they could be transferred to the helping relationship role of HRD consultants in organizations. The paper highlights the need for further research.

Keywords: Metaphor, Psychotherapy, Consultancy

Dedication: Much of this paper was written during September 11-15, 2001. It is dedicated to the volunteers from the Holy Heart of Mary High School, St Johns, Newfoundland, who looked after me, and the hundreds like me, stranded many miles from home.

As Schein (1999) described within the concept of appreciative inquiry, "our mental models and the metaphors we use for deciphering and labeling reality structure what we see and how we think about it" (p. 56). Situations will therefore be perceived differently by two individuals to the extent that the metaphoric structure, with which conceive reality, is similar or different. These structures can be grouped together to help summarize the ways in which many individuals perceive a set of situations, for example, Kuchinke's (2000) three theoretical approaches to HRD and examples of metaphoric language for each. Others of particular relevance to HRD include Marshak's (1993) grouping of metaphors for change and Morgan's eight metaphors for organizations.

Metaphors are always present in our language, and therefore offer a potential insight to how we conceive situations and responses. That is certainly the case within organizations, and there are many documented examples of metaphors being used by employees and leaders. There is also evidence of this metaphoric language being used in HRD work within organizations. Short (2000) highlighted examples covering: how perceptive organizational consultants notice the rich metaphorical language of clients and other stakeholders as they describe their work environment; and using metaphors to facilitate transformations in organizations, for examp le by identifying gaps between current and desired metaphors as catalysts of change or by facilitating change in organizations that is either incremental (within a metaphor) or fundamental (from one metaphor to another).

These cited examples describe the application of metaphor at a group or organizational level, where change is required by a group or across an organization. What is less clear from existing work is how to analyze and transform metaphor at an individual level. For example, imagine the situation where an HRD consultant is working one-to-one with a client: how does the consultant use metaphors introduced by the client, and how does the consultant introduce his/her own metaphors to aid understanding and transformation? Some of this work has been described within Neuro-Linguistic Programming texts, although has not been considered from an HRD research perspective nor linked into the recent work on metaphor in HRD published by HRD researchers (for example: Short, 2000; Ardichvili, 2001; Daley, 2001).

Contribution and Structure of This Paper

Many fields and disciplines have acted on the importance of studying metaphor, including psychology, information systems, psychotherapy, organization development, organizational change, teaching, and research; and suggestions have been made that HRD can learn from that study and can translate those lessons into the HRD context (Short, 2000). This paper focuses on application in HRD, and specifically on the way in which HRD consultants can apply metaphor in their one-to-one work. It does that by considering the potential lessons from the experiences of those applying metaphor in a field where equivalent one-to-one conversations are held between a 'consultant' and a 'client,' that of psychotherapy. There are, without doubt, other lessons to be learned from other fields and disciplines, but space dictates that this paper focuses on one.

This paper should be considered within the broader context of the recent developments in the study of metaphor in HRD. For example, the 2001 *Advances in Developing Human Resources* journal issue dedicated to metaphor in HRD closed some of the gap between metaphor study in HRD and those in other disciplines by

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illustrating metaphor in HRD research, practice, and education. Lessons for HRD from the application of metaphor in psychotherapy were touched upon briefly in the *Advances* issue. For example, Short (2001a) stated that, "consultants could adapt methods already being applied in psychotherapy to explore clients' metaphors" (p. 387). This paper picks up that hook and considers the methods applied in psychotherapeutic practices. It addresses the three questions: How are metaphors applied in psychotherapy? What can HRD learn from the application of metaphor in psychotherapy? What are the implications for HRD professionals?

The paper is structured to first describe metaphor theory; then the application of metaphor in psychotherapy; followed by a discussion section exploring the suitability of transferring the application techniques to HRD practice; and finally, an implications and conclusions section describing the need for further research and reflection on the application of metaphor in HRD practice.

Theoretical Framework on Metaphor

Metaphor is derived from the Greek *meta*, meaning 'above or over,' and *phorein*, meaning 'to carry or bear from one place to another.' Metaphors therefore carry meaning over from one domain to another (Kopp, 1995). To be a little more specific, a metaphor presents a way of seeing something as if it were something else and, by transferring meaning from one domain into another, it enriches and enhances both domains (Barrett & Cooperrider, 1990).

By presenting something as if it were something else, metaphors seek to generate new meaning for an existing entity or to fill gaps in our language. To use an example from HRD, the term 'brainstorming' fills a lexical gap by providing a powerful image of the activity rather than a longer literal description (Short, 2001b). That new meaning is typically generated by structuring inherently vague items in terms of something more concrete (Tsoukas, 1991), with the creative potential of metaphor depending on the tension between the two. People therefore conceive of something uncertain or unknown, such as an organization, by associating it with something they know a lot more about, such as a machine (Morgan, 1997). The generation of new meaning results from the partial nature of metaphors, and that partial nature implies that several metaphors are needed to provide a more rounded coverage of an entity. A good example is Morgan's (1997) use of eight metaphors to capture the different features of organizations: machine, organism, brain, culture, political system, psychic prison, flux and transformation, and instruments of domination.

Many theories have been offered to describe and explain different aspects of metaphorical language and metaphor processing (Cameron, 1999; Gibbs, 1999) but, more than any other, cognitive theories of metaphor have had the greatest impact on metaphor research and thinking over the past thirty years. Lakoff and Johnson (1980) proposed that metaphor is not just a matter of language, and that human thought processes are largely metaphorical; and this led an increasing agreement that metaphor is an indispensable basis of both language and thought (Goatly, 1997).

Lakoff and Johnson (1980) argued that such expressions as 'is that the foundation of your theory?' and 'the theory needs more support' do not exist individually as random clichés but instead reflect how we conceive of theories and arguments as kinds of buildings through the conceptual metaphor THEORIES (AND ARGUMENTS) ARE BUILDINGS. Many other mappings exist between language and conceptual metaphors, leading Lakoff (1993) to conclude that, "metaphor is not just a matter of language, but of thought and reason. The language is secondary. The mapping is primary, in that it sanctions the use of source domain language and inference patterns for target domain concepts" (p.208). Metaphors therefore operate as filters that screen some details and emphasize others, and in so doing they organize our view of the world (Barrett & Cooperrider, 1990). Lakoff and Johnson (1980) argued that if a person values those factors highlighted or emphasized by a particular metaphor, then that metaphor can acquire the status of truth, and then guide future actions, justify inferences, and help set goals. Associating metaphor with action raises the potential for influencing future behavior through changes to metaphors, perhaps through the introduction of new and imaginative metaphors to change conceptual systems. This is not to suggest that language alone changes reality, but that changes in conceptual systems alter what is real for us and affect how we perceive the world and act upon those perceptions (Lakoff & Johnson, 1980).

Many examples have been documented of how behavior change resulted from the introduction of new metaphors. Short (2001b) listed a few of these and their references, including: helping a dysfunctional group to liberate aspirations, decrease interpersonal conflict, build strategic consensus, and renew the collective will to act; reframing problems to produce innovative ways of tackling social policy problems; pictorial metaphors in computer-generated displays used in the development of professionals to guide future skilled action; 'unfreezing' organizations prior to change; and the reframing of client-generated metaphors in psychotherapy.

Metaphors in Psychotherapy

There are many different definitions and types of psychotherapy, although a central feature is that of the relationship between the therapist and the patient, which seeks to produce changes in cognition, feeling, and behavior (Holmes & Lindley, 1989). The therapy situation comprises three main elements: a healing agent (the therapist), a sufferer who is seeking relief, and a healing relationship that includes a structured series of contacts between the healer and sufferer (Frank & Frank, 1991). According to Lankton and Lankton (1983), the majority of clients enter psychotherapy as a 'last ditch effort' to gain relief from problems that are immediately threatening, where their perceptions about change may be locked or obscured and altering those perceptions is the foundation of change in psychotherapy.

Watzalawick (1978) identified two languages present in psychotherapy: the one was objective, definitional, cerebral, logical, and analytical – the language of reason, or science, of explanation and interpretation; the other was the language of imagery, metaphor, and symbols, which according to Lankton and Lankton (1983), engages normal comprehension-making mechanisms of the mind more effectively than logical speech. Watzalawick (1978) argued this was due in part to the way the brain processes metaphorical language. The left hemisphere of the brain tends to process information sequentially, building realities one piece at a time in terms of hierarchies, dealing with the logical and rational (Close, 1998). Consequently, when problems are tackled using the left hemisphere, it is possible that clients believe the soundness of the advice given to them but remain unable to make the needed changes in their behaviors and feelings (Barker, 1996). The right brain functions by grasping things in their entirety; it is the world of spatial awareness, visualization, music, art, drama, feelings, intuition, and spirituality (Close, 1998). Where a series of logical, rational treatment plans have failed, metaphors can bypass (or outflank) the left-brain, opening up potentials for creating new patterns and connections (Kopp, 1995), challenging and reframing existing world-views (Close, 1998), and so offering creative approaches to perception and behavior change (Barker, 1996).

The basis of metaphor in psychotherapy is the belief that new experiences and ideas can result from evoking and transforming metaphoric images. There are many examples of how metaphors, in the form of stories, have influenced the behaviors of many people, including religious parables and children's fables (Lankton & Lankton, 1983); and the application of metaphor in psychotherapy builds on the power of metaphor to affect behavior. Not that the application of metaphor in psychotherapy forms a new 'school' of therapy, but instead emphasizes the therapeutic interventions possible because of the metaphoric communication within existing methods (Kopp, 1995).

There are two broad classes of metaphor application in psychotherapy: client-generated, and therapist-generated (Kopp, 1995); and the literature review in this section provide an overview of each. The vast majority of accounts of metaphoric interventions in psychotherapy involves the use of therapist-generated metaphors, rather than client-generated (Kopp, 1995).

Therapist-Generated Metaphors in Psychotherapy

The general approach to using metaphors in psychotherapy, through stories and anecdotes, was pioneered by Milton Erickson, specifically within the context of Ericksonian hypnotherapy (Lankton & Lankton, 1983). Several features typified Erickson's approach, including the use of metaphor as part of an in indirect strategy, and the use of embedded metaphors (introducing new metaphors within other metaphors) as part of a conscious/unconscious dissociation. Whereas Erickson's application of metaphor was generally with clients in a state of hypnotic trance, others have documented the more general application of therapist-generated metaphors, including Barker (1996) who described eight types of metaphor introduced by therapists (also see Close, 1998, for examples of applications):

- Major stories – carefully constructed, often quite long, stories tailored to the specific needs of a clinical situation.
- Anecdotes and short stories – used with limited goals to make specific points in a concise and focused way.
- Analogies, similes, and brief metaphorical statements - have similar aims to anecdotes and are commonplace devices used in everyday conversation.
- Relationship metaphors - where one relationship is used as a metaphor for another.
- Tasks and rituals – valuable at transition points, such as the transition from one situation to another, or at the termination of therapy.
- Metaphorical objects – where one object is used in therapy to represent another.
- Artistic metaphors – allowing people to express their feelings and ideas through drawing, painting, sculpture, etc.
- Cartoon therapy – linked to artistic metaphors, this is used particularly with children .

Barker (1996) stated that all the different types have the same aim: of reframing (changing the meaning of something), by offering different understandings of situations, of people's views of themselves or others, of relationships, of how problems can be solved, of past experiences, and of what the future holds. This is achieved by using metaphors to make or illustrate points, suggest solutions, help people to recognize themselves, seed ideas, increase motivation, embed directives, decrease resistance, model a way of communication, etc., (Barker, 1996, citing from Zeig).

Client-Generated Metaphors in Psychotherapy

Kopp (1995) believed that, "a client's metaphoric language lies closer to the client's unconscious than any theory's metaphoric language. Thus, it is the metaphoric imagery created by the person that most directly represents that person's unconscious process" (p. 115). Kopp (1995) therefore described client-generated metaphors as "allowing both the therapist and the client [to] expand and deepen their understanding of the client's belief system reflected in the client's metaphoric speech and early childhood memory metaphors" (p. xvii). Kopp (1995) argued that there are six dimensions of client-generated metaphors that illustrate individual reality (he called there *metaphorms*). The six are, about the: self, one (either an individual or a group), life, self-self (the client's connection with themselves), self-other (the client's connection with an other), and self-life (the client's connection with life).

Emphasis on clients' metaphors requires that the therapy shifts into the domain of metaphoric imagery, with attention being paid less to the logical meaning associated with the communication content and more to the metaphoric image. This is achieved by the therapist facilitating the client's exploration of his or her own metaphoric imagery, avoiding external interpretations or frames of reference, as would be introduced if the therapist used his or her own metaphors. As Kopp stated (1995), through the therapy, "the client is freed by changing the metaphor, which can result in a change in the client's perception of reality. The changed metaphor is expanded to include a new possibility of relationship with self, others, and the world" (p. 107).

Kopp (1995) offered a six-step process for working with these client-generated metaphors as they appear in psychotherapy:

- Step 1: The therapist notices metaphors present in the client's communication.
- Step 2a: The therapist invites the client to explore his or her own metaphoric images.
- Step 2b: If the client does not understand or respond, the therapist prompts for descriptions, potentially by offering their own images.
- Step 3: The therapist invites the client to explore the metaphor as a sensory image (building on the description of the image, who is involved, what is happening, etc).
- Step 4: The therapist invites the client to describe the feelings and experiences associated with the image.
- Step 5: The therapist invites the client to transform the metaphor whether by changing the metaphoric image or by inviting the client to consider a change suggested by the therapist.
- Step 6: The therapist invites the client to build a bridge back to the original situation.

Exploring the Similarities Between Psychotherapy Metaphor and Applications in HRD

HRD and Psychotherapy: Overview

There are clear links between HRD and psychology (Swanson, 1992), with psychology being described as one of the root disciplines of HRD; however, specific associations with psychotherapy have been explored less thoroughly. Nevertheless, there are similarities between the descriptions of psychotherapy offered earlier in the paper by Frank and Frank (1991) and by Holmes and Lindley (1989) and descriptions of organizational consultancy and the helping relationship role of consultants described by Schein (1999).

Many descriptions have been offered for the stages involved in training and OD, and these tend to stress the importance of HRD professionals understanding the situation, designing or working with clients to design interventions, and supporting clients through implementation of interventions (amongst other key stages). The main intended outcome for such interventions is behavior change, usually described in terms of performance improvement. Where such interventions involve one-to-one work with clients, HRD professionals and psychotherapists are involved in equivalent activities in supporting clients, understanding problem situations and their root causes, tackling beliefs and unchallenged assumptions that underpin current behaviors, tackling those causes, and encouraging behavior change. The practice remit of most HRD professionals goes beyond this, for

example to deal more frequently with group and organizational levels, but this paper concentrates on the similarities between psychotherapy and HRD at an individual level. The implications will be considered in terms of client-generated and therapist-generated (the term 'consultant-generated' will be used when referring to application by HRD professionals).

A process for Using Client-generated Metaphors in HRD

Some work has already been completed on using client-generated metaphors in HRD practice, at least in terms of understanding the current situation. Basten (2001), for example, used an adapted learning history instrument to analyze interviews with employees, and so to highlight metaphors employees used to describe their organization's culture. She identified a dominant metaphor of the organization as a pioneer, with at least three themes of the organization on a journey, as a building, and in a battle. These were then contrasted with metaphors identified from key documents from the organization. The method was offered as a means of deriving an agreed history of the problem or situation, of tracking changes in metaphor over time, and of raising levels of awareness on dominant metaphors and their impact on employee behavior.

However, Kopp's (1995) work on client-generated metaphors in psychotherapy went much further by illustrating applications to changing client behaviors. He offered both six metaphorms (six dimensions of metaphoric structure) and six steps for sing client-generated metaphors. His six metaphorms can be translated into the context of HRD as being:

- Self – e.g. I am trapped in this job and ready to explode.
- Other – e.g. my boss is a baboon, my work team is a bunch of circus clowns.
- Life – e.g. work is a maze with snipers hidden in the bushes.
- Self-self – e.g. I keep banging my head against a wall.
- Self-other – e.g. I am trying to transform my team into superheroes.
- Self-life – e.g. my career is sinking into the quicksand.

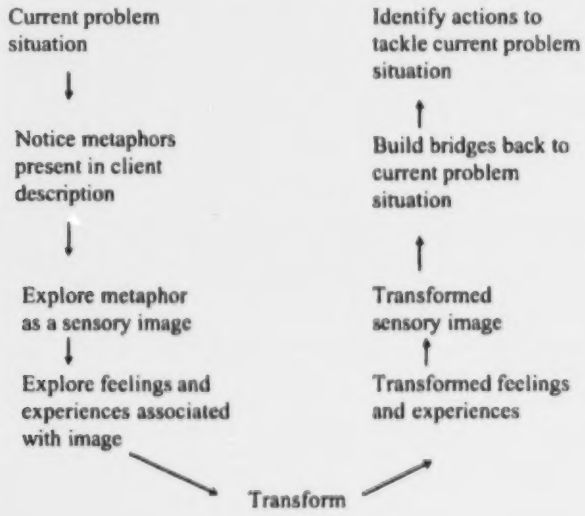
Being aware of these six metaphorms helps HRD professionals to develop a more holistic understanding of how clients structure their reality. For example, through several discussions and careful analysis of the metaphors used, HRD professionals can gain a picture of how reality is perceived by the client relative to themselves, those they work with, their work life, and their relation to others and their work. As part of that process, or as a separate process, HRD professionals can adapt Kopp's six stages into seven steps for facilitating behavior change in clients using the reframing of metaphors. Those seven steps are:

- Step 1: The HRD professional notices metaphors present in the client's communication. To illustrate possible examples, Basten's (2001) case study included: we are trying to keep our heads above water; it is like fighting windmills constantly; the idea has been shot at twice already but keeps coming back. This requires that the HRD professional tunes into metaphoric language, although without tuning out literal descriptions (and so listening with both hemispheres of the brain).
- Step 2: The HRD professional invites the client to explore his or her own metaphoric images (if needed, prompting the client using the professional's own examples). This step involves developing the metaphor from a short statement and into a mental image, for example by asking, "what does fighting windmills look like?" or "when you say the idea has been shot at twice, what image occurs to you?" Note the importance of using the language of the client, and inviting him or her to generate a mental image.
- Step 3: The HRD professional invites the client to explore the metaphor as a sensory image (building on the description of the image, who is involved, what is happening, etc). This involves exploring a few of the sensory aspects of the image, such as what else the client sees or hears in the image, by asking: "Who is in the image, and what are they doing?" "What is happening in the image, and what happened before this point?" "What happens next?"
- Step 4: Once the client has finished exploring the imagery, the HRD professional invites him or her to describe the feelings and experiences associated with the image. Again, the HRD professional stays within the metaphoric image, avoiding introducing new content, by asking such questions as: "What's it like to be fighting windmills?" or "What are you feeling as you try to keep your head above water?"
- Step 5: When exploring the metaphoric image seems complete, the HRD professional invites the client to transform the metaphoric image. The ideal is for the client to change the metaphoric image, however in some case it may be necessary to invite clients to consider suggested changes. The rationale behind this step is that the metaphoric image represents the original situation as described using metaphoric terms, and so changing the image can produce changes to the metaphoric terms and how the original situation is

perceived. Changing the metaphoric image requires that the client considers how he or she needs or wants to feel or experience, and what the sensory image should be.

- Step 6: After facilitating a change in the image, the HRD professional then invites the client to build a bridge back to the original situation using a two-stage approach. First, the HRD professional asks, "What parallels do you see between your original image and the current situation you face," and invites discussion of the similarities. Second, the HRD professional asks, "How might the way you changed the image apply to your current situation?"
- Step 7: As the changed image produces new insights on the current situation, the HRD professional encourages the client to identify specific actions he or she can take within the current situation and in the direction suggested by the changed metaphoric image.

Figure 1: Diagram of the steps for applying client-generated metaphor in one-to-one HRD practice


Current problem situation
Notice metaphors present in client description
Explore metaphor as a sensory image
Explore feelings and experiences associated with image
Transform
Transformed feelings and experiences
Transformed sensory image
Build bridges back to current problem situation
Identify actions to tackle current problem situation

Applying the Client-generated Metaphor Process in HRD Practice

This seven-stage process is not intended as a replacement for existing conversations between HRD professionals and their clients, nor should it be viewed as an HRD professional's primary means of approaching behavior change in one-to-one consulting or counseling situations. However, it does offer HRD professionals an additional technique for applying in particular situations, and best practice will need to be determined through research (in terms of when and how to use metaphors in one-to-one HRD situations). More work is also needed to determine how the above steps can be applied to different situations, for example, whether there is a shortened version of the process that can be applied in certain situations without the need to work through all seven.

In the meantime, experience from application in psychotherapy offers some insights to the 'when' and 'how' of client-generated metaphor application in HRD, including:

- Certain clients will be more open than others to exploring metaphor in conversations with HRD professionals. It is possible that some already make deliberate use of metaphor, for example as a tool to describe situations to their employees or to the HRD professional. Such individuals are likely to be more open to exploring the metaphoric images, and potential changes to those images, that flow from their metaphoric language. Others are likely to be more reluctant. HRD professionals need to use their judgment when deciding how to introduce metaphor into their one-to-one work with a specific client, if at all.
- Part of the decision on timing may involve the degree of rapport developed between the HRD professional and the client. Where there is a long-term trusting relationship, HRD professionals are likely to find it easier to introduce metaphor into their one-to-one work with that client. Earlier attempts, without the

foundation of a strong relationship, may lead the client to reject the process.

- HRD professionals should use metaphor in their one-to-one work as part of an overarching strategy to help the client. That is, HRD professionals should have clear goals for introducing metaphor into their work, and those goals should be aligned with other work being completed to support the client. Metaphor should not be used simply because it is different, novel, creative, etc., but because the HRD professional has explicitly selected metaphor as a suitable way to facilitate changes in clients' perception and subsequently behavior.

A process for Using Consultant-generated Metaphors in HRD

Several books are already available that offer HRD professionals a source of metaphor, in the form of stories, that can be introduced as consultant-generated either in a one-to-one or group setting. Berman and Brown (2000), for example, offer stories to help with: overcoming barriers to learning, promoting self-esteem, successes and failures in the learning process, differentiating between wants and needs, leaving the past behind, dealing with conflict, etc. When used in group-settings, Berman and Brown (2000) provide HRD professionals with guidance on using guided visualization techniques to accompany the stories.

As with therapist-generated metaphor in psychotherapy, it is likely that metaphors generated by HRD professionals are used explicitly in behavior change far more than those generated by clients, in part because of the relative ease with which they can be introduced into dialogue. Using client-generated metaphors requires a deliberate, systematic process whereby the HRD professional pays attention to client metaphor, then works with the client to explore them and draw parallels between current and desired situations. On the other hand, consultant-generated metaphors, particularly in the form of stories or anecdotes, can just be slotted into dialogues (for example, to emphasize the need for change), and it is likely that this happens on a regular basis without drawing attention to the role of metaphor in the change process.

Whereas the use of client-generated metaphor requires adopting a specific process, using consultant-generated metaphors may mean that the HRD professional can apply the process that he or she would normally adopt when working with clients to understand situations or identify possible actions. This would, of course, depending on the type of metaphor used. Although building metaphor into existing processes is possible, experience from the application in psychotherapy illustrates the importance of paying careful attention to selecting the best metaphor, to the help clients may need to understand the parallels between their situation and the messages in the metaphor, and to the potential for returning back to the metaphor during long dialogues or a series of them.

Some of the metaphor options available to HRD professionals include those identified by Barker (1996) for psychotherapy: major stories; anecdotes and short stories; analogies, similes, and brief metaphorical statements; relationship metaphors; tasks and rituals; metaphorical objects; artistic metaphors; cartoon therapy; and artistic metaphors. Each offers the potential for application in HRD one-to-one work with clients, and research is needed to determine how each is currently used and best practice in their application.

Conclusions and Implications for HRD

This paper set out to build on the recent work on metaphor in HRD and, in particular, on the journal *Advances in Developing Human Resources* dedicated to metaphor in HRD research, practice, and education. In the *Advances*, Short (2001a) identified that there was still much for HRD to learn from exploring the application of metaphor in other disciplines, and that was particularly the case for HRD practitioners who could further extend their use of metaphor in working with clients. Although a number of disciplines could have been selected for study, this paper concentrated on psychotherapy, where metaphor application is well documented. The paper therefore explored how metaphors are applied in psychotherapy, what HRD can learn from that application, and the implications for HRD.

As the literature review in the paper demonstrated, psychotherapy has recognized the potential for metaphors to assist in changing perceptions and behaviors both in terms of client- and therapist- generated metaphors. There are potential advantages for HRD from considering the lesson from both types, although the space available in this paper meant that it could only scratch the surface. In doing that, it highlighted the potential from exploring the Kopp (1995) six-metaphorm structure for understanding reality as perceived by the client, and also the potential from adapting Kopp's process for using client-generated metaphor during HRD consultancy. Lessons from adapting the Ericksonian approach of therapist-generated metaphors were explored in less detail in this paper, although there is a need for that work. As well as such specific work, this paper has also demonstrated the potential gains from continuing the journey through further research and scholarly practice by examining such questions as:

- Which HRD problems lend themselves most readily to the application of metaphor?
- Which HRD clients lend themselves most readily to the application of metaphor?

- What context is required for introducing metaphor application (for example, in terms of the relationship between the HRD professional and the client)?
- What training or professional development do HRD professionals need in preparation for building metaphor into their work?

In terms of scholarly practice, this paper calls for increased sharing of practitioner accounts of using metaphor, where HRD professionals are working to support changes in how situations are perceived and to facilitate behavior changes. Through the sharing of case studies, answers will gradually emerge to the above questions.

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Emotional Intelligence: Review & Recommendations for Human Resource Development Research and Theory

Lisa A. Weinberger
University of Minnesota

Emotional intelligence is now being referred to as the panacea for all organizational performance ills. It is these types of broad generalizations that move this area of interest dangerously close to a corporate fad. A more limited perspective of emotional intelligence, however, may provide an avenue for further research. The purpose of this paper is to review the current state of research in emotional intelligence and to explore the applicability of this phenomenon to HRD.

Keywords: Emotional Intelligence, Organizational Performance

The field of organizational behavior consists of the systematic study of the actions and attitudes that members exhibit. Those actions and attitudes are displayed through the activity of lived emotion, through workday frustrations and passions, which are deeply woven into organizational roles and characterize and inform organizational processes (Fineman, 2000a). These organizations and their processes are a network of feedback systems. This systemic activity is a foundation of an organization. The effectiveness of this systemic activity, through the actions of its organizational members can drive individual and organizational performance.

There has been a surge of interest in Emotional Intelligence through the 1990's, especially with the popular publication of Goleman's (1995) book entitled *Emotional Intelligence*. The study of areas to improve individual and organizational performance exists within the field of Human Resource Development (HRD). Looking to the framework of emotional intelligence may provide an additional pathway for research for HRD scholars. Emotional Intelligence as defined by Mayer and Salovey (1997) is:

> ....the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (p. 10).

The purpose of this paper is to review the current state of research in emotional intelligence and to explore the applicability of this phenomenon to HRD. The basis of emotional intelligence first comes with an understanding of the role of emotion at work and the respective research in that area. From this basis, additional details into research in emotional intelligence will be identified along with its applicability to HRD. This literature review will be limited to those primary contributors in the respective areas.

Study of Emotion

The study of emotional intelligence has emerged out of the psychological domain within the overall study of emotion. Emotion research itself has been driven primarily from a sociological and psychological perspective. Various research interests exist within each domain of study.

Sociological Perspective

Much of the sociological emotion at work research is based on the groundbreaking research of Hochschild (1979). In her essay, she proposed that a perspective of emotion management provides a lens through which one can inspect the self, interactions and structure. She identified "feeling rules" which were guidelines within the organization that governed how people try or do not try to feel in ways "appropriate to the situation". Emotion management is the type of work that is required to deal with the organizational "feeling rules". Hochschild (1983) furthered this work and defined emotion management as the "management of feeling to create a publicly observable facial and bodily display" (p. 7).

Emotions can be indicators of well-being and happiness. Prior to Hochschild, Goffman (1969) considered that many of the emotions conveyed by employees could be thought of as control moves. These control moves are the "intentional effort of an informant to produce expressions he thinks will improve his situation if they are gleaned

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by an observer" (p. 12). Rafaeli and Sutton (1987) followed the spirit of Goffman's writings in their paper where they considered work settings in which employees display emotions in order to fulfill role expectations.

Emotion is a component of communication, and for it to convey meaning the message must be encoded by a source and decoded by a receiver (Osgood, Suci & Tannebaum, 1957). These emotional messages or displays can be taught to employees through operant conditioning, socialization, informal organization, selection and even rewards. These rewards are used to encourage or discourage the display of certain emotions (Rafaeli & Sutton, 1987). But it is the organizational context that has the strongest influence over feelings conveyed at the outset of an emotional transaction. Because of this, Rafaeli and Sutton proposed, "emotion work can bring about immediate, encore and contagion gains (or losses) for the organization" (p. 29). This emotional contagion is the ability to have a heightened potential to infect others on an emotional plane through facial and vocal expressions and posture (Domagalski, 1999).

Callahan and McCollum (2001), Short (2001) and Turnball (2001) are currently completing emotion work in the field of HRD. Callahan and McCollum describe a framework for conceptualizing emotional behavior in an organizational context. Short looks to analyzing training from an emotion perspective and Turnball looks at the role of emotions in a corporate change program. These HRD scholars, as well as Hochshild, Goffman and Rafaeli & Sutton are looking into the role of emotion work from a sociological perspective, but of what interest would the construct of emotional intelligence be from a psychological perspective?

Psychological Perspective

The definition of HRD has evolved and still today, numerous definitions exist (Weinberger, 1998). HRD defined as "a process of developing and or unleashing human expertise through organization development and personnel training and development for the purpose of improving performance" (Swanson, 1995, p. 208) has the greatest utility from an organizational performance perspective. Various definitions of emotional intelligence also exist. The Mayer and Salovey (1997) definition of emotional intelligence however, has a narrower, more focused perspective as opposed to the multitude of broad-based definitions put forward by Goleman (1995, 1998) and others. The development of unleashing human expertise is a critical component for HRD. In general, expertise is defined as "displayed behavior within a specialized domain and/or related domain in the form of consistently demonstrated actions of an individual that are both optimally efficient in their execution and effective in their results" (Herling, 2000, p. 20). Emotional intelligence and its relationship to various forms of expertise provide the applicability of this construct to HRD.

Current State of Emotional Intelligence

In order to more effectively understand the emotional intelligence framework, a brief review into historical roots provides the foundation. Beginning with the roots of the words "intelligence" and "emotion".

Historical Roots

Detterman (1986) defines intelligence as a "finite set of independent abilities operating as a complex system"(p. 57). He describes success in understanding this system of intelligence as directly related to our ability to obtain independent measures of the various parts of the system. Emotional intelligence is proposed to be one of those parts of the larger construct of intelligence. Weschler (1958) defines intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment" (p. 10). So, intelligence could be described as the umbrella, with various components or dimensions of intelligence underneath.

Emotion is defined as a "mental state of readiness that arises from cognitive appraisal of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically (e.g., in gestures, posture, facial features); and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it" (Bagozzi, Gopinath & Nyer, 1999, p. 186). Emotions are organized responses that include physiological, cognitive, motivational and experiential systems (Salovey & Mayer, 1990). A few basic examples of such emotions are happiness, fear, surprise, anger, and disgust. When discussing emotions, we're not only referring to those extreme emotions, such as intense anger, but the everyday emotions of living and communicating. Expressed emotion is therefore part of the work role.

The roots of emotional intelligence are found in the concept of social intelligence. Thorndike (1920) defined social intelligence as "the ability to understand and manage men and women, boys and girls – to act wisely in human relations" (p. 228). Sternberg (1985) views social intelligence also within a general theory of intelligence as "the

mental processes and structures used to attain contextual success" (p. 330). Ford and Tisak (1983) further refine the definition to "one's ability to accomplish relevant objectives in specific social settings" (p. 197). This third operational definition is focusing on specific real-life social interactions and the ways that individuals have learned to deal with those specific situations and includes some self-assessment of one's social skills and interests (Brown & Anthony, 1990).

Beyond social intelligence, Gardner (1983) proposed his theory of multiple intelligences, which included both inter and intra personal intelligences. Both of these domains constitute social intelligence according to Gardner. He defines them as:

> Interpersonal intelligence is the ability to understand other people: what motivates them, how they work, how to work cooperatively with them...Intrapersonal Intelligence...is a correlative ability turned inward. It is a capacity to form an accurate, veridical model of oneself and to be able to use that model to operate effectively in life. (p. 25).

With the components of intelligence, social intelligence and emotion, Salovey and Mayer (1990) proposed that emotional intelligence is a subset of social intelligence and is part of Gardner's view of the personal intelligences. They described emotional intelligence abilities that may be categorized into five domains: a) self-awareness; b) managing emotions; c) motivating oneself; d) empathy; and e) handling relationships. Emotional intelligence includes a set of conceptually related mental processes involving emotional information which include a) appraising and expressing emotions in self and others; b) regulating emotions in the self and others, and; c) using emotions in adaptive ways. The key here is that they are mental processes. Emotional intelligence includes the "recognition and use of one's own and other's emotional states to solve problems and regulate behavior" (Salovey & Mayer, 1990, p. 189). Emotional intelligence is a combination of the idea that emotion makes thinking more intelligent and that one thinks more intelligently about emotions. Salovey and Mayer (1990) were the first to design a framework of emotional intelligence, and defined it as a "type of social intelligence that involves the ability to monitor one's own and others emotions, to discriminate among them, and to use the information to guide one's thinking and actions" (p. 189).

Models of Emotional Intelligence

Salovey and Mayer were one of the early pioneers in the area of emotional intelligence and throughout the 1990's have continued to publish many studies in this area. Goleman (1995) popularized the notion of emotional intelligence through his book *Emotional Intelligence* and followed in 1998 with *Working with Emotional Intelligence*. The writings in emotional intelligence have taken two different approaches. Mayer, Caruso and Salovey (2000) describe the first approach as a 'mixed model', which is a socio-emotional approach that includes not only abilities but is inclusive of many personality characteristics. This first model is a broad perspective and definition of emotional intelligence. The second approach is described as an 'ability model'. This approach defines emotional intelligence much narrower, and is exclusive of many of the personality characteristics that are included in the 'mixed model'. Following is a brief outline of the difference and the respective contributions.

Mixed Model Approach. Goleman (1995; 1998) is one of the earlier proponents of the "mixed model" of emotional intelligence. Goleman used neuroscience and psychological theories to form the basis for his descriptions of emotional intelligence. He defined emotional intelligence as one's ability to "motivate oneself and persist in the face of frustrations; to control impulses and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope" (Goleman, 1995, p. 34). He further described it as a set of traits that could be referred to as one's "character". Bar-On (1995) also looked at emotional intelligence from a mixed model perspective. He defined emotional intelligence as "an array of capabilities, competencies and skills which influence one's ability to succeed in coping with environmental demands and pressures" (1995, p.5).

Mayer and Salovey (1997) have said that their first 1990 (Salovey and Mayer) definition of emotional intelligence would also fall more under the "mixed model" definition. Other mixed model authors such as Cooper (1997) and Cooper and Salwaf (1997) in their book *Executive EQ*, tried to take the emotional intelligence construct and apply it to executives in an organizational context. They developed their four-cornerstone model of emotional intelligence, which includes: a) Emotional literacy; b) Emotional fitness; c) Emotional depth; and d) Emotional alchemy (Cooper, 1997). The authors describe each cornerstone, or aspect of emotional intelligences as a tributary. Trust is a key component for emotional fitness, whereas character and integrity are critical for emotional depth. The blending of all the forces is called emotional alchemy.

The difficulty with these various mixed model definitions of emotional intelligence is that they take a rather broad stroke at the construct of emotional intelligence. The broader the perspective, the more difficult it is to

measure and attribute to key outcomes. In addition, these broader definitions within the "mixed model" framework results in a series of descriptions of pro-social behaviors and personality traits and not a more restrictive definition of emotional intelligence (Bryant, 2001). This tends to be the direction of most popular press writing in this area as well. The more focused, limited, definition of the "ability model" of emotional intelligence provides a greater research avenue, as these components are not already accounted for by existing personality theories and measures.

Ability Model Approach. Mayer and Salovey modified their definition in 1997 to clarify some potential holes and misunderstandings and further delimit their perspective to an ability focus (see page 1 for definition). The key assumption underlying this definition is the connection between emotions and intelligence. It is the ability to think intelligently about emotions as well as the ability to use emotions to think intelligently that is critical to the perspective of Mayer and Salovey (Graves, 1999). The authors Mayer, Salovey and Caruso are the only researchers to put forward a more limited view of emotional intelligence, within the "ability model" framework. With this foundation of Emotional Intelligence, what are some possible implications for the field of study of HRD?

Emotional Intelligence in the Organization

Much of the popular press espoused the benefits of emotional intelligence as the key foundation to an organizations success. These key benefits were supported through a great deal of anecdotal evidence. There were, however, several research studies that looked at the role of emotional intelligence in the workplace. Abraham (1999) conceptualized emotional intelligence within the framework of the organization. The purpose of this conceptualization was to provide a framework for future empirical research. The authors' framework consisted of nine propositions of emotional intelligence ranging from is relationship to work group cohesion, to performance, organizational commitment and organizational citizenship.

Abraham (2000) looked at the role of emotional intelligence and its impact with job control. The author proposed that job control might affect the consequences of emotional intelligence through the ability of emotionally intelligent individuals to present themselves favorably and to relate problems to internal emotional experience. This author found that emotional intelligence was significantly associated with organizational commitment and that it predicted a large amount of the variance in both job satisfaction and organizational commitment. A better understanding of organizational life however could occur through the exploration of the emotional interactions of top management, through the role of leadership.

Leadership

Emotions are an integral part of organizational life and they have applications to leadership (Ashforth & Humphrey, 1995). There exist today many different organizational theories of leadership (Yukl & VanFleet, 1992). Many of the theories of leadership today have charisma as their core concept (as cited in Kuchinke, 1999). Weber (1968) initially defined charisma as a "quality of an individual personality, by virtue of which he is set apart from ordinary men and treated as endowed with supernatural, superhuman, or at least specifically exceptional qualities" (p. 48).

From the foundation of Weber, Bass (1985) developed a theory of transformational leadership, which distinguished it from transactional leadership. Transformational leadership occurred through the motivation of subordinates to perform at a higher level, offering intellectual challenges, paying attention to individual development needs and leading followers to a higher collective purpose, mission or vision. Transactional leadership occurred through a process of negotiation, rewards in exchange for attainment of specific goals and agreed upon tasks (Bass, Kuchinke). Transformational leadership, with its development out of charisma, has emotions as its base (Wasielewski, 1985).

Sosik and Megerian (1999) studied the relationship between aspects of emotional intelligence and transformational leadership behavior. They found that correlations between emotional intelligence predictors of leadership and leadership behavior differed based on categorizations of self-awareness. Those managers who maintained self-awareness, possessed more aspects of emotional intelligence and were rated as more effective by both their superiors and subordinates than those who were not as self-aware. This study provides some additional groundwork for developing and or improving emotional intelligence in organizational leaders.

Caruso, Mayer and Salovey (in press) look to addressing the role of emotional intelligence in leadership effectiveness. These authors describe that one of the goals of effective leadership is to "create and enhance individual and group relationships" (p. 6). Kahn (1993) cited by Caruso, Mayer and Salovey studied relationship formation as an emotional attachment. The ability of leaders to manage emotions effectively (a component of

emotional intelligence), has been supposed to foster this attachment. Through Caruso and Mayer's (in press) case studies, they provide another potential area of research for HRD scholars. Research questions in the areas of emotional intelligence and its relationship to different domains of leadership effectiveness looks to the expertise of leaders and whether emotional intelligence is significant to that expertise.

Management

In addition to leadership, the role of emotional intelligence to management development is another area of research interest to the field of HRD. Langley (2000) makes an argument for the importance of using emotional intelligence as a form of evaluating the competencies of various levels of management and providing the foundation for management development. Carson, Carson and Birkenmeier (2000) also management scholars, developed and validated an instrument for measuring emotional intelligence. Langley and Carson, Carson and Birkenmeier used the Goleman (1988) construct of emotional intelligence as the basis for their papers. As identified earlier, that construct is very broad, consequently, an exploration into the area of emotional intelligence from an ability model perspective and its relationship to management development would be an additional area of interest to HRD scholars.

Jordan (2000) recently reviewed emotional intelligence based on its contribution to the practice of management in organizations. This author looked to the Mayer and Salovey (1997) emotional intelligence framework as the most appropriate to evaluate the linkage between emotion and cognitive interactions and the resulting contributions to organizational performance.

Individual and Team Performance

Graves (1999) evaluated the relationship between emotional intelligence and cognitive ability and its ability to predict performance in job-simulated activities. Using the Mayer and Salovey (1997) framework and the MEIS instrument, Graves found that the emotional intelligence measures were not redundant with cognitive measures. And stated that "emotional intelligence and cognitive ability play equally important roles in explaining differences in people's ability to (a) influence and (b) demonstrate interpersonal competence" (p. 187). He found support for emotional intelligence as a predictor in adding value to an organization's selection processes. Graves (1999) concludes that if further results show that "emotional intelligence can be trained and it predicts job performance, the implications for selection, employee development, and performance evaluation could be staggering" (p. 195). These are all areas of research interest to HRD and its impact on performance.

Bryant (2001) is currently researching the relationship between emotional intelligence and sales performance. He specifically is looking to those factors that contribute to high performance in sales and their relationships to emotional intelligence. Additionally, his study is positioned to add to the normative data of the MSCEIT. Bryant is conducting his research within the HRD umbrella and his results will provide some of the first studies in HRD specifically associated with emotional intelligence.

Caruso and Wolfe (in press) explore the role of emotional intelligence in the workplace. Through their case study writings, they lay the foundation for empirical studies into the relationship between emotional intelligence and: a) career development; b) selection; c) training; and d) management development. From an HRD perspective, answers to these relationships would provide additional groundwork for their work in improving organizational performance.

Finally, Rice (1999) looked to the role of emotional intelligence and its impact on team performance. This work provides an initial inquiry into this area of study. HRD scholars interested in teams, team expertise and their resulting performance could look to the emotional intelligence framework for an additional area of study. All of these areas, organizational commitment, leadership effectiveness, management development, training and development and team performance remain fruitful areas of research for the HRD scholar. Using the emotional intelligence framework provides these researchers another perspective to evaluate these areas and their resulting impact on improving organizational performance.

Conclusion

Any new body of research interest provides researchers the opportunity to view, study and test it from a variety of perspectives. The area of emotional intelligence is no different. Unfortunately, the popular perception of this phenomenon is far ahead of its researched support. The domain of emotional intelligence study falls into two key categories. The first category defined by Goleman (1995,1998) and many others in the popular press, has been

described as the 'mixed model' approach. This model and its respective proponents continue to publish many articles, and it is the most well known within the business community. The continued proliferation of these tests, in multiple mediums through books, and internet on-line "quick tests" and the consultants using them with little scientific support, push this area of study dangerously close to the precipice of another corporate fad.

The second category is defined by the academic scholars Mayer and Salovey (1997) and has been described as the ability model approach. This approach more narrowly defines emotional intelligence from a cognitive ability perspective and minimizes the cross over into personality characteristics that convolute the "mixed perspective". This approach emerged through the research efforts of Mayer, Salovey and others through the 1990's. These authors have followed a more cautious path and have been more concerned with first appropriately defining emotional intelligence and creating an appropriate instrument to measure it than pushing forward into hypothetical outcomes and predictive power that has been the calling card of the Goleman camp.

The ability model perspective also provides a more appropriate avenue for researching the application of emotional intelligence to the field of HRD. The study of emotional intelligence and its relationship to leadership, management, teamwork and team performance are areas ripe for further research in HRD. Several research agenda's in the area of emotional intelligence to consider are:

- What is the relationship between emotional intelligence and leadership style?
- Does an emotionally intelligent leader produce better results?
- Can emotional intelligence be trained?
- Does ones emotional intelligence impact their performance?
- What is the role of emotional intelligence in team performance?
- Do emotionally intelligent individuals provide better service (customer service, technical support, sales support, etc.)?

Though these research agenda's are not all encompassing, they provide the initial connections to HRD theory and practice. The study of emotional intelligence from a more limited perspective and its connections to HRD theory will provide a more scholarly basis of work from which the HRD practitioner can pull from. Only when these theoretical connections and the resulting impact on organizational, process and individual performance are confirmed through solid research, can the HRD practitioner begin to utilize this information. It is this research that is required, in order to ensure that emotional intelligence is not pushed into another "corporate fad".

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Toward A More Harmonized View of Emotion Management: The Influence of Identity Salience

C. Leanne Wells
Virginia Tech

Jamie L. Callahan
Texas A&M University

Research on emotions in organizational life has increased substantially in the last decade. A number of models and theories have been proposed to help better understand the nature of this phenomenon. This paper reviews the control distinctions model of emotion management proposed by Callahan and McCollum (2000). We suggest that the concept of identity plays a useful role in further understanding the application and implications of emotion management in organizations.

Keywords: Identity, Emotion Management, Emotional Labor

Emotion management, specifically emotional labor, has become a popular topic in exploring the work of organizations. It is over two decades since Hochschild (1979) introduced her emotion systems theory. Volumes of literature and research have been devoted to exploring and testing this theory. A recent model introduced by Callahan and McCollum (2000) distinguishes the two terms of "emotion work" and "emotional labor" associated with emotion management. A key component of that model is the locus of control in the management of emotion; in other words, they explore who decides when and how an individual should manage emotion. The present paper looks at the nature of this control as it relates to emotion management and suggests that the incorporation of concepts of identity would help harmonize the various types of emotion management.

Our purpose is to explore how we can extend our understanding of emotion management in such a way that the interests of both the individual and the organization are honored. We specifically want to forge a path toward a more integrative perspective of emotion management efforts in order to appreciate more fully how this perspective may "speak" to us in terms of intervention efforts – both by the organization and by the individual – for future research opportunities. We believe that the literature on identity, with accompanying constructs such as self and identity salience, opens that path for us. In the present paper, we explore the literature on emotion management and then describe how the concepts of identity can be used to create greater harmony between individual and organization with regard to emotion management actions. We conclude with some implications of our present thinking for research and practice.

Emotion Management

Emotion management theory stems from Hochschild's (1979, 1983) work addressing the individual's attempts "to change in degree or quality an emotion or feeling" (1979, p. 561) based on social guidelines. She differentiates from earlier concepts posed by Goffman and Freud, seeing emotion management as a means of evoking, shaping, or suppressing emotions. Hochschild (1979) equates emotion management to deep acting – the management of the feelings underlying expression – a premise beyond Goffman's surface acting, which is management of expression alone. She also migrates from Freudian limitations of emotions as unconscious and involuntary to envisioning emotion management as an active process enacted "by self upon the self, by self upon others, and by others upon oneself" (1979, p. 562).

As an active, conscious, and voluntary process, emotion management often occurs when an individual perceives a discrepancy – Hochschild (1979) terms it a "misfit" or "pinch" – between what *is* felt and what *should* be felt as determined by social feeling rules. Serving as "baseline[s] in social exchanges" (Hochschild, p. 553), feeling rules not only govern an individual's feelings but also influence how that individual reacts to (thinks) and acts (behaves) upon those feelings. For example, when an individual receives a compliment, social feeling rules commonly dictate a feeling of gratitude. Beyond gratitude, feeling rules typically influence a cognitive reaction, such as "I like what she said and I should acknowledge it in an appreciative way," as well as behavioral reactions in the form of a smile, words of thanks, or a returned compliment.

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Beyond the "what" of these emotions, social feeling rules also define the "how much" and "how long" parameters of affective experiences (Hochschild, 1979). Continuing with the previous example, feeling rules would not only dictate appreciation but also determine the degree of appreciation you felt – perhaps as compared to how much appreciation you would feel if complimented on a different attribute or accomplishment, if the compliment had come from a different person, or if the compliment had been received in another social setting.

Display rules differ from feeling rules in that they characterize the behavior associated with emotions. While it was noted earlier that feeling rules influence actions, display rules have more power in predicting behavior. Ashforth and Humphrey (1993) note display rules as norms, which can be defined on multiple social levels. For example, the behavior dictated by receiving a compliment might vary with the social setting or the social group. We might acknowledge an accepted societal display rule, which could differ from the norm defined by a subculture, an occupation, a family unit, or a specific organization. This difference does not have to be contradictory, although it is possible that it is. Each of us may agree that the general social norm for receiving a compliment is to display a smile and express verbal thanks. However, my subculture might dictate that I also display a blush with lowered eyes and verbally credit others who influenced or enabled my "success." Your organization may expect you to also extend a handshake and return a similar compliment.

Differentiating between display rules and feeling rules returns us to the concepts of surface acting and deep acting. Surface acting is a form of impression management in which the individual displays an emotion different from the felt emotion (Ashforth and Humphrey, 1993). With deep acting, the individual attempts to feel the displayed emotion. Through cognitive, bodily, or expressive techniques - singly or combined – these deep-acting efforts aim at a "tripartite consistency" (Hochschild, 1979, p. 563) between the situation, the feeling, and the conventional frame. The individual receiving a compliment may actually feel embarrassment but display gratitude as expected within the social situation and the conventional frame. Using deep-acting techniques, that same individual works toward genuine feelings of gratitude, perhaps initially co-existing with but later replacing embarrassment.

In fact, the desire to reduce or eliminate inconsistency is so powerful, it is not uncommon for the individual to endeavor to change the situation when it is too much to change the emotion within a conventional frame (Francis, 1997). In this scenario, it is easy to envision the individual incapable of feeling genuine gratitude – and perhaps struggling unsuccessfully to surface the appropriate display of emotions – either quickly removing himself from the situation or redirecting the conversation and, in effect, ignoring the compliment. It is conceivable to believe that the individual may seek to remove future inconsistencies by avoiding similar situations or the person offering the compliment.

Some argue "society can regulate expressive behavior but not the individual's expressive experience" (Ashforth and Humphrey, 1993, p. 97). But when "pinched," an individual using emotion management to reduce gaps and to create a fit between the "is" and "should" feelings is in reality regulating that expressive experience. As a social creature, the individual is unlikely to engage in any emotion management effort in a vacuum – exclusive of societal influence, if not societal regulation. To say this in a different way, the individual who successfully replaces the feeling of embarrassment with gratitude may at first have been *influenced* to do so. If emotion management– deep acting – is enduring, it can also be argued that society (or the social group) has indeed regulated the desired feeling or expressive experience.

Emotion Work versus Emotional Labor

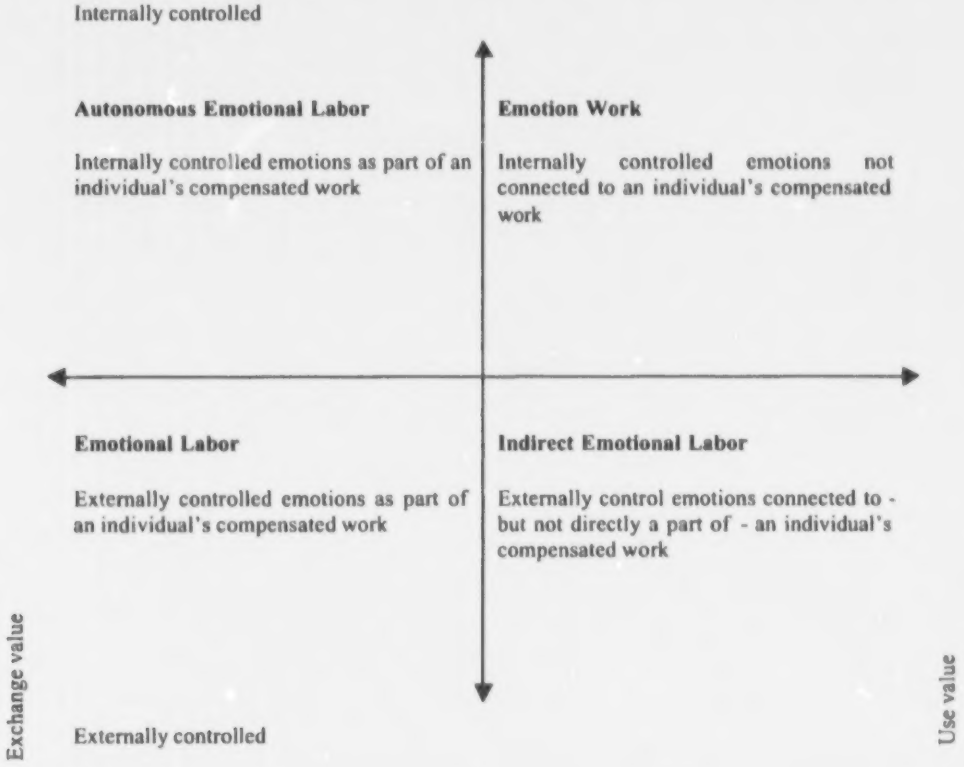
In her original work, Hochschild (1979) used emotion management synonymously with emotion work. Later, she distinguished emotion work from emotional labor using the Marxian differentiation between use value and exchange value (Hochschild, 1983). Here she conceived emotion work as "the management of feelings ... in a private context where they have use value," while positing emotional labor in a public context where feelings are "sold for a wage and therefore have exchange value" in an effort to produce "the proper state of mind in others" (1983, p. 7). Thus, the key to discriminating between emotion work and emotional labor is seemingly the purpose for which the emotion management is performed (Callahan and McCollum, 2000).

As Callahan and McCollum (2000) observe, the literature following Hochschild's 1983 work provides a number of interpretations regarding the terms emotion work and emotional labor – at times using them interchangeably, periodically failing to distinguish them from one another, and sometimes even confusing and contradicting the terms. In her study of emotional contagion among health-care employees, Strazdins observes "Hochschild's definitions of emotional labor and emotion management refer to the management of emotion in the self in order to display emotion, whereas emotional work refers to behaviors that alter other people's emotions" (2000, p. 3). In another comparison, she defines emotion management as how an individual impacts his own emotions, with

emotional contagion being how others' emotions impact the individual. Seeking to uncover "hidden workloads" in her study of university personnel, Pugliesi (1999) equates emotion management with emotion work, then distinguishes emotional labor as wage-compensated efforts, further denoting these efforts as regulated by the organization. Copp (1998) fails to make any distinction between emotion work and emotional labor, simply terming the efforts "emotion management" in her study of floor supervisors working with developmentally disabled staff. Similarly, Konradi (1999) makes no mention of the two terms, using the umbrella of "emotion management," in her examination of courtroom strategies of rape survivors. Thoits (1996) aligns with Hochschild's definitions but limits emotional labor as *self*-controlled efforts, labeling *other*-controlled strategies as interpersonal emotion management.

Citing a number of additional works, Callahan and McCollum contend "that distinction between emotion work and emotional labor is important not only to advance theory development but also to advance practical interventions in organizations" (2000, p. 18). They elect to use emotion management as an overarching term inclusive of both emotion work and emotional labor. As an advancement of Hochschild's (1979, 1983) emotion systems theory and spurred by Tolich's proposition that emotional labor "is not always under the control of the organization" (Callahan and McCollum, p. 9), they use dichotomies of exchange value/use value and of internally controlled/externally controlled to explain the type and power influence of emotion management, respectively. Their model is presented in Figure 1, with synthesized definitions of each quadrant provided by the present authors.

Figure 1. Forms of Emotion Management


Internally controlled
Autonomous Emotional Labor
Internally controlled emotions as part of an individual's compensated work
Emotion Work
Internally controlled emotions not connected to an individual's compensated work
Emotional Labor
Externally controlled emotions as part of an individual's compensated work
Indirect Emotional Labor
Externally control emotions connected to - but not directly a part of - an individual's compensated work
Exchange value
Externally controlled
Use value

The model provides clarity regarding the natures of exchange value and use value. Equally important is its addressing of control so often cited by other researchers as an important element of consideration when engaging in emotion management work. Their theory advancement allows not only for more targeted intervention strategies, which is the subject of their work, but also for keener insights into the nature of the individual engaging in emotion management efforts. How are the concepts of self and identity linked to emotion management, especially emotional labor? Which links – already observed and noted – can be further pursued, perhaps strengthened or enhanced? How might identification be an additional tool in harmonizing the control of emotion management efforts?

Identity: Self, Salience, and Identification

Identity theory "explains social behavior in terms of the reciprocal relations between self and society" (Hogg, Terry & White, 1995, p. 256). Baumeister and Muraven (1996) see this as an adaptive process between the individual and the societal context. Mead (1934) asserts that the self emerges from social experience and develops according to its interactions and relationships with that experience and with other individuals. Indeed, he maintains that there is no self separate from the community and that it is only through "relationship to others ... through superiority to others, and inferiorities in comparison to others" (p. 204) that we realize self. Advancing this premise, the self is further defined by others' valuing and respect, and a sense of self is realized not only through personal actions but also through others' collaboration and influence, which if contested compromise that sense of self (Campbell, 1997). In essence, the self is a social collective, both complex and dynamic – learning, defining, maintaining, and appreciating itself through interaction with others.

A variety of social roles allows for multiple components of self or multiple identities (Terry, Hogg & White, 1999). Through Mead's (1934) eyes, we are a compilation of different selves, which uniquely and individually react to and interact with others and with social experiences. It is the reactions of others and society that determines which self we choose to be. As Mead alleges "the complete self is thus a reflection of the complete social process (p. 143). Thus, self and identity are each social constructs, emerging in part from the societal roles the individual assumes.

Mead (1934) identifies the unified self as consisting of separate "me's" and "I's. The "I" is an historical self, representing "the response ... to the attitudes of the others" or response to the social situation itself – a naïve source of "freedom, of initiative" (pp. 175, 177). In contrast, the "me" is more of a present self composed of all the historical "I's," representing "the organized set of attitudes" and "values of the social group" – a sophisticated, "conventional, habitual individual" (pp. 175, 197, 214). In other words, the "I" is a genuine, instinctive self, while the "me" – arguably no less genuine – is a more learned, developed self.

With the introduction of the "I" and "me," Mead (1934) infuses the self with an element of time. This element of time denotes a process of development, a "psychological unfolding of personality" piece by piece until the whole is formed (Robbins, Chatterjee, & Canda, 1998, p. 197). As Campbell avers, a sense of self requires "opportunities to understand the self in relation to the past" and is dependent "on some of a person's experiences becoming memories" (1997, p. 55). As such memory, self, and person become inseparable, "braided concepts" and identity becomes linked "to sameness of memory over time" (Campbell, pp. 53, 63).

Essentially, the individual considers both past and future selves and strives for an integrated self, as well as a "defined personality within a social reality which one understands" (Robbins, Chatterjee & Canda, 1998, p. 198). To achieve such a synthesis, each individual responds to the social environment with distinct aptitudes. Kroger and Green credit Erikson with qualifying this phenomenon as "different capacities use different opportunities to become full-grown components of the ever-new configuration that is the growing personality" (1996, p. 477). Successful ego development leaves the individual with not only a strong sense of identity but also of individuality. As suggested, identity remains impressionable, susceptible to crisis and role confusion at any point during the lifespan.

Returning more fully to the concept of social role, Simon defines a role as a "set of expectations prescribing behavior that is considered appropriate by others" (Hogg, Terry & White, 1995, p. 257). Thus, an individual's sense of self is linked directly to behavior. As social creatures, the more closely that behavior aligns with the expectations and satisfaction of others, the greater the individual's sense of self and self-esteem. Misalignment often results in feelings of distress and self-doubt. The degree to which behavior is reflective of role expectations depends on the identity salience. The various identities forming the self are organized hierarchically with those nearer the top becoming more significant, whether in defining self (Hoelter, 1983) or in influencing behavior (Stryker, 1980). This identity salience explains why individuals "with the same role identities may behave differently in a given context" (p. 257).

In addition, identity is a means of making life meaningful and is connected to the individual's basic values (Baumeister & Muraven, 1996). They present a more modern – suggestive of more evolved – self where the individual "look[s] inside [herself] to find the sources of value and the answers to moral dilemmas (p. 410). This positions the self as a value base on its own merit and aligns the self with morality, contradicting historical moral mandates of self-restraint and self-deprivation in deference to others. With this freedom, the individual perhaps relies less on the social sanctioning of others (or society at large) for the development and approval of self than did his ancestors. With this evolution we recognize a more independent – although not separate – self. The old adage that "no man is an island" remains true, even in this modern world.

In an empirical study exploring the nature of role-identity salience, Callero (1985) supports the link between role-identity salience and behavior. Sustaining the concept of a more independent self, the study asserts that role

behavior is not significantly linked to the expectations of others. It does, however, reinforce the independent effects of the individual's self-definition of role, as well as the individual's identity salience with the role, in influencing behavior. As such, behavior in an identity-salient role is driven more by the expectations of individual than the expectations of others.

It is important to appreciate the complexity of identity salience. While the Callero study indicates a greater influence on identity salience by the individual, it does not negate the influence of others. It is more appropriate to consider the full realm of influence on identity salience. Hoelter's (1983) study intimates that identity salience increases with greater commitment to the identified role, as well as more positive evaluation of role performance. Commitment is directly related to the "cost of giving up meaningful relationships" (Stryker, 1968, p. 560), while role evaluation is attributed to the individual's self-reflexivity. Self-reflection is influenced by how others view and appraise the individual and how the individual compares self to others (Hoelter, 1983)

In a subsequent effort, Hoelter proposed a theory of personal consistency in which he notes identity salience as a product of the individual's "perceived power, activity and personal well-being" (1985, p. 118). Basically, Hoelter is addressing the individual's flexibility in responding to (i.e., behaving in) diverse social situations and social demands. The smaller the number of identities that are salient to the individual, the more likely he is to respond consistently, denoting a decreased sense of personal control within the given social setting. Not only must an individual have a high degree of identity salience, but also he must possess this salience *across* identities in order to perceive personal control and behave inconsistently (i.e., flexibly based on the uniqueness of the situation).

In summary, the self is a composite of identities largely defined through social interactions with others. Identity requires a past, a present, and a future. The individual, as an active agent within a social environment, taps into capacities and memories to take advantage of social opportunities that inform both current identity and the direction and development of future identity. One's sense of self predicts behavior, which is also reflective of social roles and the expectations of others. The degree to which an individual strives to align behaviors with these roles and social expectations depends on identity salience. As a social construct, the self does not strive to distinguish itself from these roles and social expectations or to relinquish ties to them. However, modern society has evolved to recognize the self as a moral agent, representative of the individual's basic values. This evolution gives the individual social permission to act and behave in ways that are protective of identity, self, and needs. When the needs of others and the needs of self misalign or conflict, the individual may choose options historically "unavailable." Even in instances where significant social others disagree or disapprove of the choices, the larger society provides empathy and sanction for these individual decisions. When examining or anticipating behavior, it is critical to appreciate locus of control in the role of the self, as well as the role of social others.

Emotion Management And Identity

Hochschild (1983) herself connects emotion management, specifically emotional labor, with the concepts of self and role identity. She notes that emotional labor "calls for a coordination of mind and feeling, and it sometimes draws on a source of self that we honor as deep and integral to our individuality" (p. 7). In highlighting the culture's celebration of the unmanaged heart, Hochschild depicts the managed heart as an apparent antithesis of the authentic, natural, or spontaneous self. Further, she claims "emotional labor poses a challenge to a person's sense of self," as it becomes an issue of "estrangement between what a person senses as her 'true self' and her inner and outer acting" (p. 136).

A lack of authenticity arises when the individual fails to perform deep acting and must rely on surface acting for job performance. When deep acting is required but unachievable, "the only way to salvage a sense of self esteem ... is to define the job as 'illusion making' and to remove the self from the job, to take it lightly, unseriously. Less of the job reflects on the self; the self is 'smaller'" (Hochschild, 1983, p. 135). In removing the "real" self from the job, the individual creates a false self, a "disbelieved, unclaimed self, a part of 'me' that is not 'really me'" (p. 194). Hochschild emphasizes a danger in "overdeveloping the false self and losing track of its boundaries" (p. 195).

And while she admits that this separation between a real and false self is sometimes wise, sometimes saving, Hochschild equally acknowledges this fissure as problematic: "For in dividing up our sense of self, in order to save the 'real' self from unwelcome intrusions, we necessary relinquish a healthy sense of wholeness. We come to accept as normal the tension we feel between our 'real' and our 'on-stage' selves" (1983, p. 183-184). We may begin to "act to please others at the expense of our own needs and desires" (p. 194).

The cost to the self – "real" and collective – can be costly. As Hochschild sees it "the essential problem is how to adjust one's self to the role in a way that allows some flow of self into the role but minimizes the stress the role puts on the self" (1983, p. 188). For Hochschild, emotional labor seems to require a separation between self and role, specifically work role. In comparison, Ashforth and Humphrey expand the definition of emotional labor and,

drawing on social identity theory, surmise "the greater the identity with role, the weaker the negative effects of emotional labor and the stronger the positive effects on well-being" (1993, p. 89). As such, they acknowledge the risk to self from emotional labor efforts, while offering identity as a means of moderating these potentially negative effects. They also allow for the display of genuine emotion as inclusive of emotional labor itself.

As mentioned earlier, the degree of identity salience directly associates with the individual's sense of authenticity. Stated another way, the less discrepancy I feel between my role and my identity, the stronger my sense of self value or self worth. Using Thoits' terms, Ashforth and Humphrey (1993) categorize the possibilities as follows. Emotional labor provides the individual an opportunity for either an "identity-relevant" experience – one that is meaningful to the salient identity – or an "identity-irrelevant" experience – one that holds little if any meaning for the salient identity. An "identity relevant" experience proves to be "identity enhancing" if the emotional labor strongly associates with the salient identity. In contrast, when the emotional labor strongly opposes the salient identity, the "identity relevant" experience becomes "identity threatening." As noted earlier, Hochschild (1979) maintained that the aim of deep acting is to achieve "tripartite consistency" between the situation, the feeling, and the conventional frame. For emotion management efforts to be healthy (i.e., identity enhancing rather than identity threatening), it seems a similar relationship is needed between role, self, and identity. Otherwise, it is reasonable to assume the individual will experience some degree of emotional dissonance and self-alienation.

Insights and Implications

In further clarifying emotion work and emotional labor and in acknowledging the control base of these efforts (i.e., internal self and external others), Callahan and McCollum (2000) advocate for supplemental lenses for considering emotion management activities, especially when selecting and implementing organizational intervention strategies. Their control continuum invites additional regard for the individual managing emotions. The element of identity salience seems a particularly compelling consideration.

It seems self-evident that individuals with high-salient work identities are more invested in the organization. The emotion management experiences of these individuals are more likely to be identity relevant and identity enhancing. They are perhaps more receptive to organizationally-controlled emotion management interventions. They are more likely to engage – readily and successfully – in self-controlled emotion management interventions. These individuals may exhibit a more balanced reliance between self and the organization when engaging in emotion management strategies, for their efforts aim not only for a fit within the organization but also for affirmation of self.

Figure 2. The Identity Overlay

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An overlay of identity salience onto the Callahan-McCollum model might be represented as in Figure 2. Identity salience is strongest at the center of the diagram. The smaller concentric circles reflect the balanced reliance between self and organization. The smaller the circle, the greater the focus on harmonization between the four basic modes of emotion management. As identity salience increases, the focus of control over emotion management becomes more balanced in any given organizational role. In other words, because high identity salience incorporates components of both individual and organizational, actions of emotion management would be guided by relatively equal amounts of internal and external control.

It is important to note the assumptions for this adapted model. First, just as Callahan and McCollum (2000) noted a systems perspective in identifying intervention strategies, we expect an individual to engage in organizational emotion management efforts across the four quadrants. Second, as it is commonly recognized that an individual identifies with multiple social roles, this same multiplicity is expected within an organizational context, meaning that a single individual will likely recognize and identify with numerous work roles. Third, each unique role may have a distinctive identity salience – it is neither necessary nor expected for an individual to have equivalent salience across roles. This stems from Ashforth and Humphrey's reflection on within-role calibrations "whereby one oscillates between personal engagement and personal disengagement" (1993, p. 101). A similar phenomenon is anticipated across roles. Finally, based on value (e.g., exchange or use) and control (e.g., internally or externally), an individual's salience may vary within a single role from quadrant to quadrant. For example, an individual may have greater identity salience with role responsibilities more closely aligned with autonomous emotional labor than responsibilities *within the same role* that are associated with indirect emotional labor.

What is the usefulness of the identity salience overlay? Of necessity, organizational interventions frequently are generalized by nature, aiming to reach far and wide within the organization. Yet because these interventions target people, the organization is wise to anticipate and consider the reaction to and receptiveness of these efforts through a lens of self and identity. Use of this lens positions the organization to consider and select interventions with greater flexibility, increasing the likelihood that the organization will provide multiple options and avoid single-approach strategies.

Returning briefly to the interventions outlined by Callahan and McCollum (2000), an organization might choose to implement emotional labor interventions of work design, employee wellness plans, and goal setting. While research supports the appropriateness of these types of interventions, the original model does not account for the varied employee responses and reactions to these efforts. The overlay of identity salience offers a deeper perspective. While it may prove unfeasible to individualize interventions for each single employee, the organization can increase intervention success through consideration of identity salience by subgroup population or empowering managers to adapt intervention strategies with identifiable individuals.

Additional exploration of this model adaptation should include a more in-depth application of identity salience to emotion management efforts. What else can identity salience tell us about the individual engaging in emotion management? Based on identity salience, can we anticipate differing reactions to emotion management efforts within each of the four quadrants? How might strategizing organizational interventions using this perspective influence the degree of identity salience among individuals and over time? Beyond identity salience, what additional factors may assist with a greater individual perspective regarding emotion management?

Conclusion

As a theory or model is considered for practical and research application, it is natural to view it from assorted perspectives to more fully explore and appreciate its contributions. A practitioner or researcher hoping to benefit from the theory or model surveys existing information and studies to help inform his current understanding and to build additional insight and awareness. He may endeavor to answer such questions as "How is this meaningful to me?" or "How can I make this more meaningful – to me and/or to others?"

This paper presented an overview of literature addressing self, identity, and emotion management. It outlined some key areas of overlap in these fields of study and research. In addition, it suggested a meaning-making adaptation of an existing emotion management model for the practitioner or researcher desiring a more individualized perspective on emotion management strategies. Identity salience is one approach for achieving a more targeted view of the individual involved in emotion management. Such a targeted perspective positions the organization for greater success. The individual can also expect to benefit from reduced emotional dissonance, as well as an increased sense of self-authenticity.

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An Instructional Strategy Framework for Online Learning Environments

Scott D. Johnson
Steven R. Aragon
University of Illinois

The rapid growth of web-based instruction has raised many questions about the quality of online courses. It appears that many online courses are simply modeled after traditional forms of instruction instead of incorporating a design that takes advantage of the unique capabilities of web-based learning environments. The authors present a conceptual framework that can guide the development of online courses. Specific examples of instructional strategies that fit the framework are described in detail.

Keywords: Online Instruction, Web-Based Instruction, Instructional Strategies

Distance education is an instructional delivery system that allows students to participate in an educational opportunity without being physically present in the same location as the instructor. Although print-based correspondence study is the traditional method of distance education, more contemporary approaches rely heavily on various forms of instructional technology (Garrison, 1987). The reason for much of the growth in distance education programs in recent years is due to the development of the Internet and improvement of technologies that support online learning environments. For example, among higher education institutions offering distance education, use of two-way interactive video and one-way prerecorded video was essentially the same in 1997–98 as in 1995 while the use of asynchronous Internet-based technologies nearly tripled in that same time period (Lewis, Snow, Farris, Levin, & Greene, 1999). This change is not new to the distance education community, which has seen technology-based educational innovations come and go with much fanfare. The instructional films of the 1940's were expected to radically change the educational delivery system, as were instructional radio and television. While each of these technology innovations had some impact on educational programs, they did little to change the fundamental nature of education. The Internet and computer technology, as the next generation of technological innovation to impact distance education, appears to have the power to significantly alter the education landscape.

In spite of this rapid growth, there is considerable concern about the effectiveness of this educational innovation. Numerous studies comparing traditional classroom-based instruction with technology-supported instruction have found no significant differences on critical educational variables such as learning outcomes and student satisfaction (Clarke, 1999; Johnson, Aragon, Shaik, & Palma-Rivas, 2000; Navarro & Shoemaker, 1999; Smeaton & Keogh, 1999). A very popular web site (http://teleeducation.nb.ca/nosignificantdifference) contains a listing of over 300 research reports on technology for distance education (Russell, 1999). This comprehensive bibliography spans seven decades and highlights studies that found little or no significant impact of instructional technology on various educational variables.

The obvious conclusion is that the technology used to support instruction has little impact on students' attainment of educational outcomes. The primary factor in any instructional initiative, irregardless of format or venue, is the quality of the instructional design that is ultimately implemented. Based on the lack of evidence that technology significantly influences the learning process, scholars in the field of instructional technology now conclude that the technology used in an online program is not as important as other instructional factors, such as pedagogy and course design (Phipps & Merisotis, 1999). This is not a new idea however, as stated by Schramm in 1977, "learning seems to be affected more by what is delivered than by the delivery medium" (p. 273).

This paper describes a research and development effort that evolved during the creation of an HRD graduate program (*HRE Online*) that was taught entirely online. The learning environment that was created to support *HRE Online* was based on the assumption that learning is a complex event that cannot be explained with a single theory of learning. Instead, we hypothesized that quality learning environments should be based on instructional principles that are derived from multiple learning theories. Through an analysis of existing literature and experienced-based practices throughout the development of *HRE Online*, we sought to answer the following questions:

1. What instructional principles for online learning environments can be derived from a fusion of multiple theories of learning?
2. Based on those principles, what specific instructional strategies or techniques can be applied in an online learning environment?

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The purpose of this paper is to present a perspective of online teaching and learning that looks beyond the traditional paradigm of instruction. Once such a perspective is adopted, instructional designers can incorporate the key elements that are needed in quality online learning environments.

Instructional Challenges for Online Course Designers

Innovations in instructional technology are often implemented in very traditional ways. For example, while the television had the potential to significantly alter the way people were educated, its use as an instructional tool built on an existing instructional paradigm by providing a "talking head" that merely passed information to the student. Using this innovation in this way lacked creativity and ignored the power of the technology. The same problem now seems to be occurring in online instruction. Instructional designers are creating online courses that are simple conversions of their equivalent face-to-face counterparts. Online courses tend to build on traditional views of learning where the primary goal is to transfer information from the instructor to the student. This is accomplished by providing students with access to information and expecting them to demonstrate their learning on an exam. Examples of how face-to-face instruction has been converted for online delivery include recorded lectures, online readings, homework assignments, and online tests.

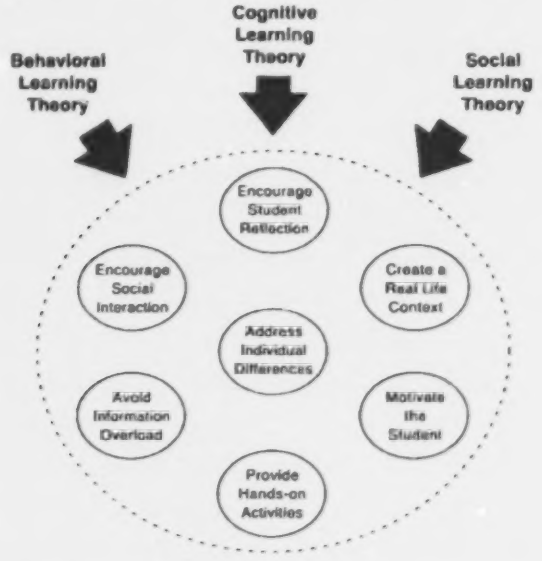
The growth of online instructional programs raises an interesting question for online course developers. Should we model our online course designs after formal models of instruction or should we incorporate innovative approaches into our online programs? If we hope to develop powerful learning environments via the web, the answer should be clear. Instructional designers need to look for innovative ways to support quality teaching and learning without succumbing to the temptation to have online instruction become direct instantiations of traditional forms of instruction. The challenge for instructional designers is to devise ways to create pedagogically sound content for delivery over the Internet. Online courses need to address variability in student learning styles and provide external forms of motivation for the isolated student. The challenge is also to facilitate active learning in online courses while avoiding the tendency to provide too much information. The most difficult challenge may be to devise ways to promote high levels of interactivity among students and instructors. Such interactivity can result in community building, collaboration among learners, and enhanced communication.

Instructional Principles for Online Learning Environments

In order to confront these challenges, instructional designers must examine their traditional perspectives and adopt a new philosophy of teaching and learning that is appropriate for online instruction. This does not imply that traditional theories such as behaviorism should be tossed aside in favor of the more contemporary social-constructionist theories. Instructional designers need to match their desired learning goals and instructional methods to the appropriate learning theories. We argue that this new philosophy should build on a combination of learning theories rather than being confined to one preferred perspective (Johnson, 1997). For example, quality online learning environments should be comprised of elements of behavioral learning theory (e.g., positive reinforcement and repetition), cognitive learning theory (e.g., address multiple senses, present new information in motivating ways, limit the amount of information presented, and connect new information to prior knowledge), and social learning theory (e.g., encourage group interaction, peer assessment, and personal feedback). Adopting a synthesized theory of learning can have a synergistic result by integrating the most positive and powerful aspects of each individual learning theory into an online learning environment.

The pedagogical model used to develop the *HRE Online* master's degree program was created by building on specific aspects of adult learning theory (Bandura, 1971; Skinner, 1968; Thorndike, Bregman, Tilton, & Woodyard, 1928; Vygotsky, 1978). Two conceptual models that were developed from an extensive study of the literature were reviewed. These two models were then synthesized into seven general principles that appear to be critical for quality learning environments (Johnson & Thomas, 1992; Johnson, 1997). We contend that powerful online learning environments need to contain a combination of these principles: (1) address individual differences, (2) motivate the student, (3) avoid information overload, (4) create a real-life context, (5) encourage social interaction, (6) provide hands-on activities, and (7) encourage student reflection (see Figure 1). This pedagogical model for online instruction was used to create the design template that is followed for each course in the *HRE Online* program. The following section provides specific examples of instructional strategies that have been used in the *HRE Online* program. Each of these strategies highlights the importance and practical application of the seven principles of quality online learning environments.

Figure 1. An Instructional Strategy Framework for Online Learning Environments



Using the Framework to Create Instructional Strategies for Online Courses

Individual Differences

Within a learning context, differences can be found in the areas of general skills, aptitudes, information processing, and application of information to new situations. In addition, all learners differ in their ability to perform various education-based and real-world learning tasks. Consequently, the general abilities or preferences of the learner will affect his or her ability to accomplish diffe rent learning outcomes. Individual differences specific to learning and instruction can be found within intelligence, cognitive controls, cognitive styles, learning styles, personality types, and prior knowledge (Jonassen & Grabowski, 1993). Each dimension helps us understand 1) patterns of thinking and reasoning about information, 2) how individuals process information to make sense of the world, 3) preferences for information processing, and 4) how past knowledge, skills, or ability influence the learning process. Each of these dimensions, collectively, helps to describe one's personality.

Recognition of individual differences has, for the most part, been taken into account and promoted through the instructional design template used in *HRE Online*. The following techniques and strategies have been used in our online courses to address individual differences.

1. *Provide content in multiple formats.* This is done through the use of various communication technologies. Lectures are audio streamed and synchronized with the applicable PowerPoint presentation. These lectures are additionally transcribed and posted in the course website. This is quite beneficial for students who travel and want to take the transcribed lecture with them to read. Content is also presented through WebBoard discussion groups where students are required to share and discuss information with each other. Each course also has links to outside web sites that provide supplemental material on the current topic.
2. *Allow for individual locus of control.* All courses provide various means of navigation within the online course. Content can be accessed through links or a graphical organizer. An individual can be as systematic or random in his or her access of course material as they desire. Although the course is built and presented in a hierarchical sequence, it does not have to be accessed in the same way. While it is not necessarily encouraged, students are also not discouraged from moving through the course in a random order.
3. *Encourage active and collaborative interaction.* Recognizing that "the whole is greater than the sum of the parts," each course is designed with activities that are both individual and group based. Working within "virtual teams," students work together to solve problems, analyze cases, and develop group deliverables. These assignments allow individual ideas, perspectives, and experiences to be heard and collectively considered. The idea of "agreeing to disagree" is taught through these experiences.

Motivation

At its most basic level, human motivation is controlled by the drive to satisfy a range of human needs (Maslow, 1970). According to Maslow's hierarchy of needs, if people lack basic needs or security, those needs must be addressed before higher level needs such as social status and self-worth can be attended to. While this model is certainly an influencing factor in human behavior, it may be more appropriate to examine motivation in terms of its complex interaction with cognitive, emotional, and behavioral factors.

The ARCS Model of Motivation is a practical way for instructors to address the issue of student motivation (Kellar & Suzuki, 1988). This model is based on a review of psychological literature on motivation and breaks motivation into four major concepts; (1) Attention, (2), Relevance, (3), Confidence, and (4) Satisfaction. Instructors must be able to gain and maintain students' attention by providing an environment that is interactive and participative. While keeping the students' attention is critical, it cannot be maintained unless the students feel that the course material is relevant. In other words, the course content, activities, and assignments must be related to their personal and professional goals. Students must also feel confident that they can achieve the expected outcomes of the course; therefore instruction should be flexible to compensate for individual student needs. The final component of the ARCS Model is satisfaction, which corresponds to whether or not students derive satisfaction from the instruction. For example, students will not perform as well if they feel dissatisfied with the instruction because it does not present enough of a challenge.

Strategies for enhancing student motivation in a web-based environment can best be characterized as either novel and entertaining approaches or attempts to personalize the instruction. We have successfully used the following techniques to enhance the motivation of our online students.

1. *Incorporate games into the online environment.* An example of a successful game for an online course is the popular television show called "Who Wants To Be A Millionaire." We have used this game during live synchronous sessions to summarize course content covered previously and to provide a sense of community among the students. The instructor plays the role of Regis Philbin, the game show host, and reads a question that requires the students to put a sequence of answers in the correct order. The students then type the correct order (e.g., B, C, D, A) as quickly as they can into a WebBoard chat window. The student who first answers correctly becomes the contestant who calls a toll free number so their voice can be patched through to the class. This provides live dialogue when the instructor asks a student the first of several multiple-choice questions. The student has the option of answering the question directly or, if they are not sure of the answer, they can use one of two "lifelines." The lifeline "Ask the Audience" involves asking all students to post what they think is the correct answer in the chat space. The contestant can then use their colleagues' responses to select the correct answer. The contestant can also "Phone a Friend" by asking one particular student for help, to which they respond by typing their answers in the chat space. The game continues until the student answers a predetermined number of questions correctly or responds with an incorrect answer. When this happen another sequencing question is asked so another contestant can be selected.
2. *Simulate a radio talk show with multiple DJs and "call-in" guests.* In many online courses the students spend much of the "class time" listening to the instructor through streaming audio or video technologies or during a live "web cast" during a synchronous class session. As we all know, it can be both boring and difficult to listen to one voice for any length of time, especially when there are few visual cues to accompany the audio. To provide variety and a livelier online atmosphere, we have been successful having multiple speakers interact during these broadcasts to liven up the synchronous sessions.
3. *Use multimedia when appropriate.* Online courses tend to be primarily textual-based forms of instruction. While this may be preferable to some students, we must recognize that the students of today are different from those of the past. The MTV generation seems to desire visual over verbal stimulation and there is no excuse for not incorporating multimedia into technology-based learning systems. We have found that graphic images, photographs, and videos enhance student motivation. For example, in several of our courses we have created short QuickTime clips from popular movies and television shows that can be streamed over the web. These clips provide entertaining examples that support the concepts and procedures being discussed in class and provide a nice break from the textual format that dominates current online environments.

Information Overload

Providing too much information in a short period of time contributes to memory overload, which makes learning difficult and leads to confusion and poor retention. Psychological studies show that most people can manage about seven "pieces" of information at one time without too much difficulty (Miller, 1956). Providing more

than that amount of information at one time overloads short-term memory. Instructional designers need to follow the *Rule of Seven*, which suggests that the amount of information presented at one time should be limited to no more than seven pieces of content (Clement, 1985). The Rule of Seven suggests that instructional designers "chunk" instructional content into small groups and give students the opportunity to learn each "chunk" thoroughly before being presented with new information. Using this strategy will result in better understanding. The following strategies have been used successfully in our online program.

1. *Limit the amount of content and activities.* By following the Rule of Seven, we help avoid memory overload by purposely limiting the amount of information and activities we provide in a course. For example, we ask instructors to break their lectures into 10-12 minute "chunks" or segments. These short lectures are recorded and converted into streaming media for delivery to students. These short lectures make it easier for students to complete in one sitting and it forces the instructor to concentrate on only a few main concepts in each "mini" lecture. This approach also fits ideally with the concept of a learning cycle.
2. *Organize instruction around learning cycles.* The instructional design model used in the *HRE Online* program utilizes learning cycles at the core of its modular approach. Each course has a hierarchical structure containing sections, modules, and learning cycles. This approach allows for easy updating of courses over time and the development of custom courses to meet different client group needs. More importantly, this instructional design approach builds on theories of adult learning. Each learning cycle is comprised of three components. The first component provides the student with access to new content through a streamed audio or video file or by reading an online article. The last component of the learning cycle involves evaluating the learning outcomes through an activity involving self-assessment, peer-assessment, or formal instructor assessment and feedback. Once the learning cycle is completed, a new cycle begins with the presentation of a new "chunk" of content, followed by new application and assessment activities.
3. *Provide a graphic organizer for the course.* It is very easy for students to get lost in any hypertext environment as they navigate through online courses that contain extensive layers of content distributed over multiple locations. To avoid the frustration and memory overload that can occur in a web-based environment, we provide a visual representation of the course structure. This graphic organizer serves as a map for students as they navigate through various portions of the course. The graphic is also hyperlinked so students can quickly move to a desired location in the course by clicking directly on the image.

Contextual Learning

Context is an essential central element in learning because knowledge is a product of the activity, context, and culture in which it is developed and used (Brown, Collins, & Duguid, 1989). Wilson (1993) identifies three major premises of context and how these affect knowing and learning. The first is the idea that learning and thinking are social activities that are structured by constant interpersonal interaction. Second, the available tools within the particular situation significantly structure an individual's ability to think and learn. Finally, "human thinking is profoundly structured by interaction with the setting" (p. 72). We offer the following recommendations to online instructors to promote contextual learning in the virtual classroom.

1. *Create virtual learning teams.* At the start of each new course, students are placed in a virtual learning team consisting of three to four other classmates. This allows the instructor to replicate the group experience found in face-to-face settings. Students work together on weekly assignments and projects via conferencing systems, conference calls, e-mail, and Instant Messenger. This initiative provides a group context that is similar to what would be experienced in the face-to-face classroom.
2. *Simulate reality using appropriate case studies.* Regardless of the delivery format, the more "real-life" examples that can be utilized, the better students will learn. Case studies are an excellent way to provide the context through which new learning can be developed. As with any situation where a case study is used, it is critical to choose cases that relate to the content of the course. In our online evaluation course, students are provided with a case describing a program within an organization that needs to be evaluated for effectiveness. Throughout the duration of the course, students are asked to design an evaluation around this case using the concepts, ideas, and procedures taken from the course materials. Students are provided with feedback through WebBoard discussions and weekly synchronous chat sessions.
3. *Require collaborative projects with schools, businesses, or other organizations.* Students are encouraged, where possible and appropriate, to develop course projects within the context of their work environment. This provides a real-life context in which to imbed application of the material. For example, in the online instructional design course, students develop a training package that represents 68 hours of training time. The majority of the students choose to develop a training package that addresses a performance issue within their organization.

Social Learning

Social learning theory combines elements from both behaviorist and cognitive theories and posits that we learn best by interacting with others in social settings (Merriam & Caffarella, 1999). Behavioral learning theory contributes to social learning because people do not learn from observation alone but through imitation and reinforcement of what they observed. Cognitive theory focuses on the cognitive processes involved in the observation over the resulting behavior with the idea that individuals can regulate their own behavior by recognizing consequences. Social learning is manifested through socialization, social roles, mentoring, and locus of learning.

For the social learning theorist, the purpose of education is for the learners to have new roles and behaviors modeled for them. Instructors and peers serve as a model for new roles and behaviors within an educational context. The following strategies have been successfully used by online faculty to promote this perspective.

1. *Create a personal connection with students.* The goal is for instructors to be perceived as a real person in mediated communication. This is promoted several ways. Each course has an audio-streamed welcome message from the faculty member. This helps the student to put a face with the voice. Additionally, actions such as humor, vocal variety, personalizing examples, addressing students by name, questioning, praising, initiating discussion, and encouraging feedback all help make this connection. Personal connection can also be made through the use of "relational icons" or "emoticons" made by combinations of punctuation marks.
2. *Peer review and feedback.* Feedback from fellow students is as important as instructor feedback. Therefore, students in many online classes are asked to provide a meta-evaluation of another student's work. The purpose of the activity is to help their peers by providing comments that help the person understand the areas that are clear and well done and the parts that need further development. This activity also models appropriate format for the particular assignment being developed.
3. *Require and facilitate interaction.* This may not seem like a new approach, however, in the online environment, it is much easier for students to be passive both in weekly assignments involving the group as well as during synchronous chat sessions. In addition to basing a percentage of the course grade on participation, other initiatives can be taken as well. One is to post an agenda of the upcoming week's synchronous session. This serves as an advanced organizer and allows students to come to class better prepared for interaction. Another technique is to post discussion questions prior to a synchronous session so students can think about the topic and be ready for a discussion. Throughout the week, students are required to review comments and ideas that have been posted by other students and respond to them in a virtual class discussion. Two things that are important to keep in mind. First, while the quantity of interaction is important (measured by hits on the WebBoard), the quality of interaction is what should be stressed. If not, it becomes too easy for students to fall into the trap of providing comments that add little or no value to the discussion. Second, it is important that the instructor model the expected type of interaction by providing quality comments to the discussion as well.

Active Learning

There seems to be an assumed separation between knowing and doing in education (Brown et al., 1989) where knowing is valued over doing and mental activity is valued over physical activity. However, cognitive theorists have challenged this perspective because the activities through which learning occurs are inseparable from cognition. In order for formal online instruction to be successful, some form of learner activity must be included.

Active learning can occur in many forms in an online environment. Discovery learning, project-based learning, and cooperative learning are common techniques for engaging students in activities that involve considerable amounts of creativity, decision-making, and problem solving. Each of these instructional approaches emphasizes the importance of learning from experience that is goal driven and activity-based. Since these activities usually take more time to complete, they provide for sustained thinking about specific problems over long periods of time. The following are specific examples of how active learning can be applied in an online environment.

1. *Organize online courses around projects.* Since HRD is a constantly evolving applied field of study, it is reasonable to design an online HRD course with a heavy emphasis on the application of the skills and procedures needed by the HRD professional. The best way to accomplish this in an online environment this is through a project-based approach. Application-rich courses can be designed around major projects and specific activities to be completed in order to create a final product. For example, in the instructional design course where students are expected to create a complete training module, they need to complete many specific tasks such as conducting a needs assessment, developing training plans, and creating instructional media. By adopting a project-based approach, the online instructor can easily incorporate the concept of active learning into a virtual environment instead of providing the typical "read and write" online course.

2. *Think-Pair-Share in a virtual environment*. Having online students work in groups of two or three within a virtual environment is a great way to keep students active and focused on their learning. Think-pair-share is an active learning technique used in many face-to-face classes but is rarely used in a virtual environment. The goal is to help students organize prior knowledge, brainstorm questions, or summarize, integrate, and apply new information. This strategy can be used in both synchronous and asynchronous situations.
3. *Use small group discussions during synchronous sessions.* Although few online programs seem to rely on synchronous class sessions, they can provide powerful opportunities for student interaction. We conduct weekly synchronous sessions in our program where the instructor performs a live audio broadcast to the students over the web while the students interact with the instructor and other students in a group chat space. While this in itself encourages active learning, incorporating small group interactions into the large group discussions further enhances it. This is accomplished by having the instructor describe a discussion activity to the class and then asking them to enter their private "virtual team" chat space to discuss and complete the assignment. A specific time is given when the students are expected to return to the class chat space and share the major points of their discussion with the rest of the class. Although this technique is commonly used in many face-to-face classes, it is a unique, yet underutilized, strategy in an online learning environment.

Reflective Learning

Mezirow defines learning as "the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation, and action" (1990, p. 1). Reflection allows individuals to correct distortions in their beliefs and critique "the presuppositions on which our beliefs have been built" (Mezirow, 1990, p. 1). Argyris and Schon refer to critical reflection as double-loop learning "that results in a change in the values of theory-in-use, as well as in its strategies and assumptions" (1996, p. 21). The process of reflection enables the ideas, understandings, and experiences of individuals and groups to be reviewed (Preskill & Torres, 1999). Values, beliefs and assumptions of team members are explored through reflection. Through better understanding of individuals' mental models, we can better understand how two or more people can view the same event so differently. Watkins and Marsick (1993) see reflection as a key to continuous learning. The following three strategies can be used to promote reflective learning.

1. *Provide extensive and timely feedback.* While this is something most instructors already know, it is important to remember that the online environment removes some of the human "checks and balances" that face-to-face students have with the instructor. While the opportunity to ask questions and have interaction with the instructor is relatively equal, feedback received through physical distance, eye contact, facial expressions and personal topics of conversation is not present for these individuals. Therefore, it becomes even more important that the instructor take time to provide feedback that is detailed enough to paint a complete evaluative picture. This includes addressing not only the areas that were weak or need improvement, but providing praise for the areas that were done well. Instructors are encouraged to get this feedback to the students no later than a week after the assignment is turned in.
2. *Incorporate "One Minute Papers" and "Muddiest Point" into class.* "One Minute Papers" are short writing exercises in which students are asked to reflect on a particular topic as a form of knowledge assessment activity. Students are asked to post a quick list of the new knowledge they gained through a particular session. The "Muddiest Point" activity allows students to identify the areas of confusion or uncertainly and/or to raise additional questions around the content of the session. Both of these activities benefit the students and instructor by providing feedback on what was clear and what may need further attention through the use of reflection.
3. *Online diaries or reflective journals.* Diaries and journals promote continuous reflection throughout the course. Entries can be self-directed or promoted by an issue, question, or experience posed by the instructor. Journals allow students to reflectively interact with various course topics and experiences and, as noted earlier, critically examine how their values, beliefs and attitudes fit with the material. This is a way that promotes growth beyond what regular instructor and student interactions provide.

Concluding Thoughts

The instructional strategy framework discussed in this paper is clearly a work in progress. Although the framework is based on well-recognized theories of learning and represents a synthesis of ideas from multiple perspectives, it is not fully developed, nor is it all-inclusive. Additional principles will be added as the online program continues to develop and evolve. The specific techniques for applying the instructional principles highlighted in this paper are currently in use in the *HRE Online* courses and continue to be enhanced each time they are implemented. The

possibilities for application of the instructional strategy framework are only limited by the creativity and energy of the instructional designers and course instructors.

Formalized research efforts need to be conducted to validate and improve the strategy framework and the instructional techniques that evolve from it. Studies that examine the effectiveness of instructional strategies in online courses are lacking in the educational technology literature. Most literature provides anecdotal comments on experiences with online courses and empirical research that compares face-to-face and online delivery methods. Instead of comparing two dissimilar learning environments, future studies should empirically test the effectiveness of different instructional techniques in maximizing learning opportunities and achievement in online environments.

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Using Online Learning to Meet Workforce Demand: A Case Study of Stakeholder Influence

Angela Benson
University of Illinois at Urbana-Champaign

The purpose of this initial phase of inquiry was to investigate how stakeholder interests influenced one state's efforts to provide online, undergraduate degree programs to meet workforce needs. The investigation employed an embedded qualitative case study design. The findings showed that the negotiation of consenting and conflicting stakeholder group interests resulted in the prevailing of the interests of some stakeholder group at the expense of the interests of other stakeholder groups.

Keywords: Online learning, Program Planning, Distance Education

Traditional education and older forms of distance learning have presented difficulties for non-traditional learners. These learners include busy professionals who travel extensively and unskilled laborers employed in jobs with inflexible hours that make a traditional school schedule unworkable. Many business organizations and academic institutions have turned to online learning using the Internet and other web-based technologies in order to provide the needed learning experiences for these under-served learners. Over the past decade, online learning has evolved into a growing vehicle for providing adults with new skills, updated information, and new knowledge, often through degree programs. While online degree programs are primarily concentrated at the graduate, professional level, there are an increasing number of programs being developed at the undergraduate level (Davis, 1999). Unfortunately, a recent Institute for Higher Education Policy analysis of the distance education research literature indicates that distance education research has not kept pace with distance education use (Phipps & Merisotis, 1999). A review of the current literature related to distance education program planning, with a specific focus on online technologies, revealed the same lack of related literature (Benson, 2001).

Because of the number and types of stakeholders typically associated with online degree programs, this study sought to unravel the complexity of online degree program planning by examiming the roles of the stakeholder groups involved in one state's efforts to meet workforce demands through online degree programming. In doing so, this research makes a much needed contribution to the literature base related to the planning and implementing of online degree programs, and provides practical insight to HRD professionals who are among the stakeholders of such programs.

Theoretical Framework

For the most part, online degree program development efforts have been approached using existing models from instructional design, adult education, and distance education. The models from these areas can be classified using the taxonomy that Cervero and Wilson (1994a) use for adult education program planning models: classical, naturalistic and critical. Classical models have their roots in systems theory as reflected in Tyler's (1949) curriculum development model. These models take a strict, systematic approach and require the completion of a stepwise process that usually begins with defining objectives and continues through evaluation. Naturalistic models were developed because researchers and practitioners wanted models that were more reflective of the environments in which planning, designing, and learning is actually accomplished. Instead of requiring a stepwise process as in the classical models, naturalistic models accommodate the value judgments of planners, designers and developers. Critical models were developed to focus attention beyond content knowledge and skill development to emancipatory action on the part of learners and instructors. Table 1 summarizes the model categories and provides example models from each of the three disciplines.

Cervero and Wilson (1994a) identified key problems with models in each of the categories. Classical models do not "account for the dimensions and variability of planning contexts, the nature of practical judgments, or the values that influence how judgments are made" (p.17). Naturalistic models fail to provide "any standards, either technical

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or ethical, for knowing whether the planner has made the 'best' judgment" (p. 20) and do not address the unequal power relationships of the people involved in planning. Critical models fall "short in exploring the ways [political and ethical] insights might be worked out in the everyday world faced by program planners" (p. 24).Cervero and Wilson (1994a) provide an alternative to the classical, naturalistic and critical models with their negotiation of power and interests model. According to Cervero and Wilson, "Planning programs is a social activity in which people negotiate personal and organizational interests" (p. 4). They contend that programs are not created by following a series of steps, or by making a set of best judgments, or by identifying power inequities; rather they are created through the social negotiation of the interests of the involved stakeholders (Cervero & Wilson, 1994b).

Table 1. *Macro-categories from instructional design, adult education and distance education.*

	Classical	Naturalistic	Critical
Instructional Design Models	Dick & Carey (1996) Diamond (1998)	Wedman & Tessmer (1990) Tripp & Bichelmayer (1990)	Sanchez-Lugo (1998)
Distance Ed. Models	Rumble (1986)	Knott (1994) Keast (1997)	
Adult Education Models	Diamond (1998) Rothwell & Cookson (1997)	Walker (1971)	Forester (1989)

Purpose and Research Questions

The purpose of this initial phase of inquiry was to investigate how stakeholder interests influenced one state's efforts to provide online, undergraduate degree programs to meet workforce needs. This study is significant because it sought to investigate the online degree program planning process from the social and political perspectives, rather than the technical perspective that is the focus of most related lines of inquiry. The research questions that guided this inquiry are:

1. What interests did the affected stakeholder groups bring to the planning and implementation process?
2. What influence did those interests have on the resulting online degree programs?

Methodology

The study employed an embedded qualitative case study design (Yin, 1994). Strauss and Corbin (1998) identified three types of problems that are appropriate for qualitative research: 1) attempts to understand the meaning and nature of the experience of persons with problems, 2) explorations into areas about which little is known, and 3) inquiries into feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional research methods. This investigation met all three criteria. This study sought to make meaning of the social and political processes in operation during the planning and implementation of online degree programs. The focus on the socio-political aspect of planning was a new one for the online education environment, and required experiential data that could not be collected through quantitative means.

Case study research is distinguished from the other types of qualitative research in that it is "an intensive description of a single unit or bounded system, such as an individual, program, event, group, intervention, community" (Merriam, 1998, p. 19). Case study design can take many forms. In a single-case design, the unit of analysis is the case itself (Yin, 1994). In an embedded case designs, "attention is also given to units or subunits" of the case (p. 41). The case in this embedded case study was NetEd, a statewide, online, undergraduate degree program initiative undertaken by the university system of a large southeastern state. The embedded cases were the six NetEd stakeholder groups: NetMan, University System Office of Academic Affairs (University System OAA), University NetEd Oversight Committee (University NOC), DevelopInc, Online Faculty, and Online Students.

Qualitative research typically focuses in depth on relatively small samples that are selected purposefully. The case study usually requires two levels of purposeful sample selection: the case level and the participant level (Merriam, 1998). The case level selection of NetEd was done using intensity sampling, a form of purposeful sampling (Patton, 1990). With intensity sampling, the researcher seeks "information-rich cases that manifest the phenomenon of interest intensely (but not extremely)" (p. 171). NetEd's planning and implementation processes manifested the technical and socio-political aspects of planning and implementing online degree programs that were of interest in this study.

Overall, participant level selection was done using the maximum variation form of purposeful sampling. The goal of maximum variation sampling is to "capture and describe the central themes or principal outcomes that cut across a great deal of participant or program variation" (Patton, 1990, p. 172). For maximum variation, participants

were taken from each of the six defined stakeholder groups. Within the participant groups, participants were selected using snowball, or chain, sampling. In snowball sampling, the researcher "identifies cases of interest from people who know what cases are information-rich" (p. 182). Table 2 lists the stakeholder groups included in the study, the number of participants in each group, and each group's function.

Table 2. *Stakeholder Group Summary Table.*

Stakeholder Group	No. of Participants	Function
NetMan	5	Provide direction for university system's online degree programming through its marketing and student services efforts; Entreprenuerial unit created by Board of Regents for the NetEd initiative
University System OAA	1	Provide day-to-day NetCore project management; In charge of faculty development for system institutions prior to NetCore role
University NOC	1	Direct NetCore development and policy; Comprised of Vice-Presidents of Academic Affairs at system institutions
DevelopInc	1	Transform faculty-provided content into online courses; Hired by the University System OAA and reported to that office
Online Faculty	2	Provide online course content and teach online courses
Online Student	3	Enroll in NetCore courses offered through NetMan

Qualitative methods consist of three types of data collection: (1) interviews; (2) direct observation; and (3) documents. The power of the methods is not in their individual use, but in the triangulation resulting from their collective use (Merriam, 1998; Patton, 1990; Yin, 1994). Therefore, this study used all three forms of data collection. Semi-structured, one-on-one interviews of 1.5 to 2 hours were conducted with each of the 13 participants and follow-up e-mail interviews were conducted with six participants. Observations were conducted of seven 3 – 4 hour meetings in which NetEd stakeholders participated. In addition, over 50 NetEd planning documents including meeting agendas, committee reports, commissioned studies, program objectives, mission statements, and marketing materials were collected and analyzed along with the researcher's journal.

Data analysis is the "process of making sense of the data" (Merriam, 1998, p. 178). Data analysis for this case study had descriptive and explanatory components. The descriptive component provided detailed descriptions of the case, the embedded cases, the planning process, and the stakeholder interests. In the explanatory component, the stakeholder interests and the planning process were viewed from the perspective of the negotiation of power and interests model (Cervero & Wilson, 1994a).

Merriam's (1998) version of the constant comparative method was used for the descriptive component. According to Merriam (1998), the researcher using the constant comparative method begins with a particular incident from a data set (interview, document, or observation) and compares it with another incident in the same data set or in another data set. The comparisons lead to the creation of tentative categories that are then compared to each other. Comparisons among categories are constantly made until all the incidents have been categorized and there is no ambiguity in the categorizations. The analysis of the observations and documents, including the researcher's journal, was conducted concurrently with the analysis of the interviews.

A modified form of Yin's (1994) explanation building was used in the explanatory component of data analysis. In explanation building, the researcher brings a theoretical framework to the analysis and uses the case and embedded cases to verify, fail to verify, or further develop the framework. For this study, the researcher began the explanatory analysis after completing the descriptive analysis. During the explanatory phase of analysis, the researcher compared the case, NetEd, to the theoretical framework to determine how the negotiation of stakeholder interests and the planning process shaped the resulting NetEd online degree programs. For this analysis, the researcher identified instances of negotiation when a) the researcher observed the negotiations, b) stakeholders explicitly discussed the negotiations, c) consensual or conflicting interests within or across stakeholder groups impacted the power relationships among the stakeholders, d) consensual or conflicting interests within or across stakeholder groups impacted the frames defining the NetEd initiative, or e) consensual or conflicting interests within or across stakeholder groups impacted NetEd's purpose, audience, content, and format.

Validity and reliability take on slightly different meanings in qualitative research. Internal validity refers to how well the data collected capture the reality of the phenomenon under study; external validity, to the transferability of the research findings, or the readers' ability to generalize the findings of the study to their specific situations; and, reliability, to the consistency of the findings, or whether the results are consistent with the data collected. The researcher enhanced the validity and reliability of this study by using triangulation, member checks, and peer debriefings, and by providing a stated theoretical framework and a rich, thick description of the findings that allow

readers to draw their own conclusions about the transferability of the findings to their environments, and by maintaining an audit trail of research activities through memo writing and reflective journaling .

Study Limitations

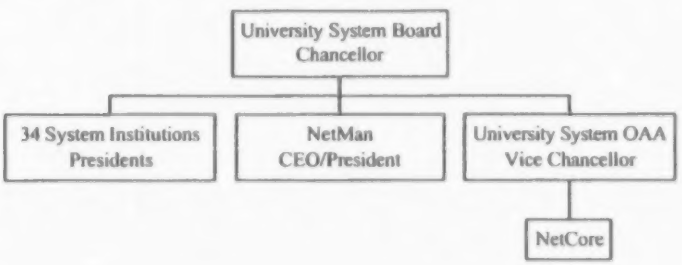
Previous research using the negotiation of power and interests model as the theoretical framework has focused narrowly on a single educational program, the size and scope equivalent to a short-term course. This study took a broader view and focused on a degree program consisting of multiple semester-length courses. The difference in scope of the studies is reflected in the level of analysis conducted. Previous studies explored the depths of the interpersonal interactions and negotiations between individual stakeholders. This study, because of its broader focus, explored the macro-level interactions and negotiations between stakeholder groups, rather than between individual stakeholders. Taking the broader approach allowed the researcher to investigate the negotiation of power and interests within a large-scale project. In order to accomplish this broader approach, the researcher had to relinquish the ability to simultaneously investigate the micro perspectives within each of the stakeholder groups. As a result, the analysis reflects a macro-level view of stakeholder negotiations rather than the micro-level view provided in previous studies.

Program Description

The case under investigation was NetEd, a statewide, online undergraduate degree program initiative undertaken by the university system of a large southeastern state. NetEd's goal was to provide online degrees in areas of critical shortage as the defined by the state's workforce needs. NetEd consisted of two projects, NetMan and NetCore. NetMan provided a web portal to online degrees offered by institutions within the state's university system. NetCore was the online core curriculum development project within NetEd. NetCore courses formed the first two years of coursework (i.e., the core curriculum) for the online degrees offered through the NetMan portal. The final two years of online coursework were to be provided by various academic departments at the system institutions.

Figure 1 shows the organizational reporting structure of NetEd. NetMan resides in the NetMan organization and reports directly to the University System Board. NetCore resides in the University System OAA. Though Figure 1 shows the NetCore project residing in the University System OAA organization, the project spanned multiple organizations in the university system. The relationships of the six stakeholder groups are described in Table 1.

Figure 1. NetEd Organizational Reporting Structure.



Findings

Stakeholder Interests

Cervero and Wilson (1994a) described three types of stakeholder interests: expressed interests, which are the stated, or revealed, preferences of individuals involved in the planning process; ideal interests, which refer to "what is really in the interest or good of a person, whether she or he thinks so or not" (p. 124); and, real interests, which are the "norms, values, and purposes implicit in what planners do" (p. 125). The findings of this investigation suggest a second taxonomy: overarching interests and operating interests. An operating interest is a perspective of an overarching interest held by one or more stakeholder groups. Table 3 shows the overarching interests and operating interests identified for the NetEd stakeholder groups. Each overarching interest has at least one associated operating

interest. For example, the Quality overarching interest has four operating interests and the Policy overarching interest has three.

Table 3. *Mapping of overarching interests to operating interests*

Overarching Interests	Operating Interests (Stakeholder Perspectives of Overarching Interests)
Quality	• Overcoming stigma associated with online learning • Meeting accreditation standards • Effective and efficient course development process • Effective pedagogy
Development	• Institutional development • Faculty development • Formal training • Technical skills development • Interpersonal skills development • Career advancement
Policy	• Surfacing policy issues • Applying policy philosophy • Clarifying policy
Process	• Planning model selection • Process control • Process flexibility
Buy-In	• Through publicity • Through accreditation and course transferability • Through process
Student Lifestyle Accommodations	• Maintaining family and work life • Access to online services • Accessibility for students with disabilities
Organizational Identity	• Structural identity • Functional identity
Programming	• Fiscal programming concerns • Student-related programming concerns
Marketing	• Market research • Increasing student enrollments
System Change	• Limiting change to course modality for accreditation purposes • Effecting system-wide change

Table 4 shows a mapping of overarching interests to the stakeholder groups who held those interests. As shown in the table, multiple stakeholder groups shared each of the overarching interests. For example, the NetMan, University System OAA, and Online Student stakeholder groups shared the Student Lifestyle Accommodations overarching interest. In addition, all stakeholder groups held multiple overarching interests. For example, the Online Faculty stakeholder group had four overarching interests: Quality, Development, Process, and Marketing categories.

The data indicate that while stakeholders shared overarching interests, the operating interests within those overarching interests were often in conflict. For example, within the Process overarching interest, the Developlnc stakeholders' operating interest in process control conflicted with the Online Faculty stakeholders' operating interest in process flexibility. Likewise, the University NOC's operating interest in meeting accreditation standards conflicted with NetMan's operating interest in overcoming the stigma associated with online learning.

This finding suggests that stakeholders of online degree programs must go beyond surface level discussions of consensual overarching interests and uncover those potentially conflicting operating issues early in the planning process. If conflicting operating interests are identified early, they can be addressed reasonably without causing any unnecessary stress on the process and the stakeholders. Uncovering conflicting operating interests late in the planning and implementation process can undermine the effectiveness of the process and the stakeholders.

Table 4. *Interests to Stakeholder Group Mapping.*

Interests	Stakeholder Groups					
	NetMan	University NOC	University System OAA	DevelopInc	Online Faculty	Online Student
Quality	x	x	x	x	x	x
Development	x	x	x	x	x	x
Policy	x	x	x			x
Process	x	x		x	x	
Buy-In	x	x	x			
Student Lifestyle Accommodations	x		x			x
Organizational Identity	x		x	x		
Programming	x	x		x		
Marketing	x			x	x	x
System Change	x	x				

Stakeholder Influence

Cervero and Wilson (1994a) contend that programs are shaped through the negotiations of the interests the stakeholders bring to the planning process. The ability of a stakeholder to influence the negotiations, and thus the resulting program, is determined by the power relationships among the stakeholders. This stakeholder capacity to act may be "socially systematic," derived from the organizational and political structures within which they act; or "socially ad hoc," derived from their role or position with respect to the planning task at hand (p. 128).

Table 5 shows the complexity of stakeholder negotiations involved in NetEd's planning. Consistent with the Cervero and Wilson (1994) model, the table shows that the negotiations of overarching interests shaped NetEd's audience, content and format. For example, negotiations around the Quality overarching interest shaped NetEd's content, format and process. The table also shows that the negotiations of multiple interests contribute to the shaping of a single program component. For example, NetEd's audience was shaped by negotiations around the Buy-In, Student Lifestyle Accommodations, Programming, and Marketing overarching interests.

Table 5. *Interests that shaped NetEd.*

Overarching Interests	Program Aspect Shaped by Negotiations		
	Audience	Content	Format
Quality		x	x
Professional Development		x	x
Policy		x	x
Process		x	
Buy-In	x		
Student Lifestyle Accommodations	x	x	x
Organizational Identity		x	x
Programming	x		
Marketing	x	x	x
System Change	x	x	x

Cervero and Wilson (1994a) posit that an ethical planning process in one in which the interests of all affected stakeholders are substantively represented, regardless of their place in the power hierarchy. The NetEd initiative did not display this characteristic. Influence amongst the NetEd stakeholders stemmed from two seats of power: NetMan and the University NOC. NetMan did planning for NetEd online degree programs and for the NetMan portal, while the University NOC focused more narrowly on planning for NetCore. The influence of each of the six stakeholder groups is discussed in this section.

University NOC Stakeholders. The University NOC consisted of representatives, primarily chief academic officers, from institutions that ultimately would have to approve the NetCore online core curriculum. Each system institution, with the exception of the three research universities and the medical school, elected to place representatives on the University NOC. These institutional representatives had the opportunity to shape policy that governed NetCore course development and implementation. Decisions on the University NOC were made by consensus, rather than by voting, since it was imperative that all institutions agree with all NetCore policy.

The University NOC model of including representatives from system institutions in NetCore planning activities extended to the NetCore course development teams. Each team had six faculty members representing six system

institutions. Using a team approach to NetCore course development allowed individual system institutions to participate in defining an online core curriculum that would be acceptable to all system institutions.

Unlike the University NOC planning team, which was made up of representatives from system institutions, the NetMan planning team was comprised of the NetMan staff with no institutional representation. As a result, NetMan had to "go on the road" to get "buy-in" from system institutions. In these road shows, the NetMan stakeholders presented the findings from their market research and tried to position the NetEd initiative and the NetMan project within that initiative as providing value to the university system and to the individual institutions.

Given the composition of the planning teams of the two projects, it should not be surprising that the University NOC exerted more influence over NetEd planning processes than NetMan. The University NOC planning team included the affected stakeholders while NetMan planning included none of the affected stakeholders. These University NOC representatives were decision-makers at their respective institutions and could make commitments that their institutions were bound to honor, while NetMan had to rely on the "good-will" of system institutions.

NetMan Stakeholders. NetMan's market research indicated student interest in "anywhere, anytime learning." In fact, NetMan's initial press releases and web portal used the phrase, "anywhere, anytime learning." Unfortunately, NetMan stakeholders were unable to exert the influence necessary to see "anywhere, anytime learning" realized within the NetCore courses, which were class-paced over the length of a semester. Neither NetMan's position in the university system organizational structure ("socially systemic power"), nor its functional role on the NetEd project ("ad hoc power") provided the power base the organization needed to ensure that NetCore course development proceeded as the market research dictated. As "facilitators," NetMan stakeholders were forced to rely on the "good will" of other stakeholder groups.

In general, any time a NetMan interest conflicted with a University NOC interest, the University NOC interest prevailed. Unfortunately, it is not clear that the prevailing of the University NOC was in the best interest of the NetEd initiative. One of NetMan's most fundamental interests, to effect system change, was in direct conflict with the University NOC's interest of limiting the educational change impact of NetCore to changing delivery media. The University NOC stakeholders prevailed because their interest in meeting accreditation standards outweighed NetMan's interest in system change.

*Online Student Stakeholders.*The Online Student stakeholders appeared to exert very little influence on NetEd planning. Students expressed interest in "anywhere, anytime learning," but all the NetCore courses were class-paced over the length of a semester.

Online Student stakeholders had a professional development interest in getting degrees in areas other than those NetMan defined as "critical shortage areas," but NetEd's focus did not change to accommodate this interest. From its inception, the NetEd initiative was focused on providing online degrees in areas of critical shortage to the state's key businesses. This adherence to the needs of the state's key businesses suggests that NetMan represented the interests of the business community, instead of the interests of the Online Student stakeholders, when deciding the content NetEd would provide.

Online Faculty Stakeholders. The Online Faculty and University OAA stakeholders brought their historical power relationships to the NetCore project. Historically, faculty members were clients that the University System OAA sought to serve and satisfy. During the NetCore course development process, the relationship gradually changed to one in which the University System OAA became more directive with faculty. Faculty did retain power based on their status as subject matter experts and content providers, and as representatives of institutions who ultimately had to approve or reject the course offerings. Not surprisingly, online faculty stakeholders exerted their strongest influence over the content of the individual courses.

University OAA and DevelopInc Stakeholders. The ability of the University OAA stakeholders and the DevelopInc stakeholders to influence NetEd planning decisions was limited by their organizational relationship to each other and to the University NOC. Since the University OAA hired DevelopInc, DevelopInc stakeholders treated University System OAA stakeholders as clients to be served and satisfied. The University OAA, on the other hand, operated at the direction of the University NOC and treated them with deference.

Implications for Future Research

While research has been conducted to identify strategies for managing power relationships among stakeholders (e.g., Mabry & Wilson, 2001), no research has been conducted to identify strategies to uncover and clarify the overarching and operational interests of stakeholders as identified in this study. Future research should pursue this line inquiry.

In addition, many studies have examined success factors for students in online courses, but few, if any, have focused on student perspectives on program and course planning and design. Such research would be a step in the right direction towards including student perspectives, which were discounted in the NetEd project, in the planning and design process. Future research also should consider the possible integration of the social and political focus of Cervero and Wilson's model with the technical focus of traditional instructional design and program planning models. An integrated model might better capture the environment in which planners and designers do their work. This future research should include program models with stakeholders from the business community.

Contribution to HRD Practice and Theory

Many HRD professionals perform the role of program planners in their daily work. As such, many rely heavily on traditional instructional design and program planning models to direct their efforts. The findings of this study suggest that the negotiation of power and interests model may provide a new perspective and a new set of tools with which to address the challenges inherent in managing planning and design processes that involve multiple stakeholder groups and a myriad of stakeholder interests. By suggesting a new perspective from which to view old problems, this research adds new knowledge to HRD theory and opens the door to future investigations that could yields models and theories of practice that are specific to the HRD environment.

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Models for Human Resource Development Online Programs

Phoebe E. Lenear
Scott D. Johnson
University of Illinois

Distance learning programs in higher education have grown rapidly in recent years due to the popularity of "online" or "web-based" instruction. However, little research has been conducted on effective online program models within the field of human resource development (HRD). The purpose of this study was to identify and describe program models for online HRD course delivery.

Keywords: Online Programs, Online Models, Web-Based Distance Learning

Advancements in computer technology have had tremendous effects on the world--how we communicate, conduct business, perform research, and even go shopping. By a simple click of a button, transactions can be made in minutes between people thousands of miles apart. Business and industry are using the Internet as a vehicle for advertising their products, offering their services, and broadening their clientele. In the same respect, higher education institutions are now using the Internet to offer courses to students who are located anywhere in the world. Many refer to this form of distance learning as online or web-based education.

The concept of distance learning has been in existence for many years. Through the use of audiotapes, videos, and correspondence, educational institutions have offered courses to students who could not physically attend their classes. Most students who enroll in distance learning courses are over 25 years of age and are characterized as highly motivated, disciplined, and committed (University Continuing Education Association, 1998). Through distance learning, students may take courses to obtain professional certification, continuing education units, or associate, baccalaureate, and graduate degrees.

Current statistics highlight the unprecedented escalation in the number of instructional programs offered through distance learning. For example, both the number of courses taught at a distance by postsecondary institutions and their enrollments nearly doubled between 1994-95 and 1997-98. In just one year, between 1997 and 1998, the growth of distance learning programs in higher education was well over 70% (Lewis, Snow, Farris, Levin, & Greene, 1999). Future projections suggest that this increase will continue because of the popularity of online instruction. The growth in online instructional programs for adults is not confined to higher education. The market for web-based corporate learning is expected to reach $11.4 billion by 2003, up from $550 million in 1998 (Moe & Blodgett, 2000).

Distance Learning Models

Distance learning is represented in a variety of educational models. These models are built around the instructional process; presentation of content; interaction with faculty, peers, and resources; practical application, and assessment (Institute for Distance Education, 1997). The most common types of distance learning models are distributed classroom, independent learning, and open learning + class model.

In the *distributed classroom model*, interactive telecommunications technologies extend a classroom-based course from one location to groups of students at one or more other locations. Educational institutions can broadcast face-to-face lectures to "satellite" sites that are strategically located near their students. Learning is synchronous or real-time. Since the satellite sites are equipped to receive and transmit both audio and video, "remote" students are able to participate in the lectures as if they were physically present. The technologies used to support the class sessions include two-way interactive video, one-way video with two-way audio, audio conferencing, or audiographic conferencing. The telephone, postal mail, fax, and a computer (for e-mail and conferencing, access to online resources, and submission of assignments) are used to support out-of-class communication.

The *independent learning model* does not require students to be in a particular place at a particular time. Instead, students are able to access course information, interact and collaborate with faculty and classmates, and submit course assignments from anywhere in the world. Students are given detailed course syllabi and access to faculty. Since there are no face-to-face class sessions, in-class technologies are not required. Technologies to support out-of-class communication include postal mail, voice mail, electronic mail, computer conferencing, and telephone. This model is used by most educational institutions to deliver online instruction.

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The *open learning + class model* is a combination of the distributed classroom and independent learning models. Students use printed class materials and media, such as videotapes and CDs while learning at their own pace. There's also occasional use of interactive telecommunication technologies for group meetings among all enrolled students. This model uses the same communications technologies as the distributed classroom model.

Purpose of the Study

Given the extraordinary growth of online instructional programs in higher education, it is essential to know what online strategies or models are most effective in delivering Internet-based programs, in particular HRD programs. This is a new area of program development, and little is known about these types of models. Just as educational institutions use distance learning models to offer courses at a distance, what types of online models do they use to deliver Internet-based HRD courses? The goal of this study was to identify and describe existing program models for online HRD course delivery. The research questions that were used to focus this study were:

1. What services and technologies are used to deliver online HRD courses?
2. What program models are used to support HRD online programs?

Methodology

A status study was conducted to obtain information about online HRD programs in higher education institutions and the types of online models they use to deliver their courses. Because of the exploratory nature of the study and the need for timely, cost effective, and easily quantifiable data, a survey design was used to address each research question. A questionnaire was placed on a web site for participants to access. After 2 weeks, non-respondents were sent a follow-up e-mail message reminding them to complete the questionnaire. Telephone calls were made to those who did not respond to the e-mail reminder.

Population

The population selected for this study was higher education institutions in the United States that are associated with the Academy of Human Resource Development (AHRD). AHRD is an international organization comprised of researchers and graduate students who are interested in various aspects of HRD. The 1999-2000 AHRD membership roster, which consisted of 650 members, was used to identify institutions that have HRD courses and programs. From this membership list, the researchers identified a total of 128 educational institutions with connections to AHRD, and 107 of these were U.S. based.

The researchers then visited the department web sites of each institution to determine if they offered web-based HRD courses. A keyword search using terms such as "Internet-based courses", "online", "distance education", and "distance learning" was also performed. If the institution offered Internet-based courses, the researchers performed another query to determine if they offered HRD courses that were 100% online. Results from this search identified 19 AHRD institutions that appeared to offer Internet-based HRD courses. To validate this list of institutions, the 1999, 2000, and 2001 AHRD conference proceedings were also searched using keywords. This search revealed no additional institutions that offered 100% Internet-based courses. Although several strategies were used to identify appropriate institutions, it is still possible that some institutions that offered HRD online programs were overlooked because various search engines were used to browse the university websites.

A contact person (i.e., faculty member or program coordinator) was then identified from the web site for each institution that offered some type of HRD online course. Each of these individuals was then contacted to invite them to participate in the study.

Instrumentation

A web-based questionnaire was used to collect the program data. Prior to developing the questionnaire, the researchers conducted a literature review to determine if any distance learning surveys had been developed that could be adapted to the HRD online status study. From this search, the *Survey of Distance Learning Programs in Higher Education* was identified (Primary Research Group, 1997). Although the survey displayed face validity, it appeared to lack content validity. Several of the items had to be rephrased, while others were deleted due to lack of applicability. After numerous revisions, the questionnaire used for this study bore little resemblance to the original instrument. The final instrument contained 33 questions addressing issues of financing and marketing online

courses, online faculty and staff support, online faculty training and compensation, online student support and resources, course development, and technologies used to deliver online courses.

To ensure content validity and clarity, a group of HRD faculty and graduate students participated in a pilot test of the questionnaire. Based on the pilot test results, the questions were revised and the final instrument was placed on a web server for participants to access and complete. Sampling was not required since all North American AHRD institutions with online courses and degree programs were asked to complete the questionnaire.

Data Collection and Analysis

All data were collected online via the Internet. Participants received an e-mail inviting them to participate in the online survey. The response rate was 68.4%. Of the 13 responding institutions, 6 did not offer HRD courses that were 100% web-based and one institution elected not to participate. The six institutions that agreed to participate were then sent an Internet address so they could access the questionnaire. Participants responded to questions by clicking on the appropriate answers or inputting short responses. Once the questionnaire was complete, participants submitted the form and the items were transferred to a database.

Microsoft Access and Excel were used to organize the questionnaire data. The researchers looked for patterns in the data and calculated frequencies and percentages for each response category. An extensive web-site analysis was also conducted for each program that had online HRD courses. This analysis consisted of an examination of the web site for each program and a review of various program characteristics related to the research questions.

Results

Respondents were asked to provide general information about their online HRD programs such as types of programs offered, number of students receiving degrees online, student profiles, typical class size, available faculty and student support services, and technologies used to deliver online instruction. Table 1 provides a listing of the institutions that offer 100% web-based HRD courses and online degrees.

Table 1. *Institutions Offering 100% Internet-based HRD Courses and Degrees*

Institution	Online Certificates or Degrees
Bowling Green State University	Ph.D. in Technology Management (core courses only)
Indiana State University	M.S. in Human Resource Development M.S. and Ph.D. (core courses only)
University of Illinois at Urbana-Champaign	Ed.M. in Global HRD Certificate in Teaching and Learning
University of Louisville	M.Ed. in Human Resource Education
University of Minnesota	None, courses only
Western Carolina University	None, a few courses offered online

Bowling Green State University

Bowling Green State University offers core courses toward a Doctor of Philosophy in Technology Management via the Internet. The Ph.D. program uses a consortium of institutions to offer core courses to support the online doctorate in technology management. The consortium is comprised of Central Missouri State University, East Carolina University, Texas Southern University, University of Wisconsin-Stout, North Carolina A&T, and Indiana State University, which serves as the lead school.

The program is designed to prepare specialists who have extensive knowledge of scientific and engineering developments, knowledge of the economic and political organizations of the global community, and sensitivity to the ethical and moral issues surrounding technology. Requirements for the Ph.D. include: 15 semester hours of general technology core courses, 12 hours of a major specialization area, 12-18 semester hours of cognate studies, 27-33 semester hours of research, and 6 hours of internship. Courses are designed to provide experiences that address topics in contemporary and future trends of technology. Philosophical dimensions influencing decision making, historical perspective, and implications for technological development, and technical systems are included. HRD online tuition ranges between $500 and $599 per course.

Indiana State University (ISU)

Indiana State University offers an online Master's of Science degree in Human Resource Development for Higher Education and Industry degree and core courses toward a Ph.D. in Technology Management. The master's program is designed to prepare professionals for higher education, industry, business, government, and other agencies. It requires a total of 33-36 hours. Upon completion of the program, participants are able to plan, conduct, and manage education, training, and other human resource development activities. The core courses offered for the online Ph.D. program are the same ones offered through the consortium with Bowling Green State University. Currently, over 125 students have completed their degree online, with tuition costs under $500 per course.

University of Illinois at Urbana-Champaign (UIUC)

The University of Illinois offers an online Master's degree in Global Human Resource Development. The program is designed for individuals currently working in or aspiring to HRD positions in either the private or public sector. It is focused on employee training and development, organization development, and the use of information and technology to improve individual and organizational performance. Emphasis is placed on HRD leadership in both domestic and international settings. Upon completion of 9 units (36 semester hours) of coursework, students are awarded a Master's of Education (Ed. M.) degree. To date, 13 students have completed their degrees and 59 are currently enrolled online. Tuition costs is currently $1008 per course.

University of Louisville

The Department of Leadership, Foundations, and Human Resource Education at the University of Louisville offers an Internet-based Master's of Education (M.Ed.). This pilot program was developed with a grant from the United States Army. The M.Ed. program focuses on human performance improvement, instructional design, and human resource management. Currently, the only course offered over the Internet is Organizational Analysis. This course examines the processes and techniques used to (1) conduct organizational task and person analyses and (2) identify training needs in a non-school environment. They plan to expand their program to offer the entire degree program online. Students who are enrolled in the online HRE program and are located in the Louisville area are given the option to take the same courses on-campus. The program requires a minimum of 30 credits for completion with a core curriculum of 27 credits. The University of Louisville began offering their HRD course online in the summer of 2001. Tuition costs per course are below $500.

University of Minnesota

The University of Minnesota's HRD program is one of six faculty groups within the Department of Work, Community, and Family Education. Their HRD program prepares students to become work, community, and family education professionals. Although they do not offer any online degrees or certificates, they have several Internet-based courses. Tuition costs are variable and dependent on whether students reside in state or out-of-state and whether they are part-time or full-time.

Western Carolina University

The Department of Human Resources is part of Western Carolina University's College of Education and Allied Professions. The department's goal is to meet the needs of aspiring and experienced human resource professionals. They offer a Master's degree in Human Resources, where students may specialize in *e*-learning, organization performance, or interdisciplinary human resource studies. A few of the graduate level courses are available over the Internet. Western Carolina University has been offering HRD online courses for more than 3 years. Tuition costs per course are under $500.

Status of HRD Online Programs

The average online class size at the participating institutions ranged from 7 to 35. Their typical online students were part-time, graduate, and career/professional. When asked to rank the importance of various reasons for offering courses online, the highest ranked reasons were to provide alternatives to traditional and non-traditional students, stay competitive, and serve new markets. One institution's main reason for offering online courses was to model *e*-learning while another's main reason was "because admin said so." The least likely reason they offered online courses was to reduce impact on college facilities. The primary strategies that participating institutions used to

market their HRD online programs were e-mail, listserves, and websites. Persons responsible for marketing their HRD online programs were HRD faculty, directors of graduate studies, and program directors.

Support for Online Faculty and Students

The level of faculty support, faculty incentives, teaching load, and percent of full-time and adjunct faculty varied at each institution. Bowling Green State University does not offer incentives or support services to their faculty; their teaching load for their online courses is the same as their face-to-face courses, and only their full-time faculty teach online. Indiana State University supports faculty with instructional designers, graphic artists, computer assistance, web page development, and online faculty training. Faculty receive additional funding for course development and assessment. The teaching load for online courses is generally lower than the traditional classroom. Of their online faculty, 90% are full-time while 10% are adjunct.

The University of Illinois provides their faculty with instructional designers, programming, and multimedia assistance as needed. Only one of their online instructors is adjunct. Online and face-to-face courses are considered equivalent when determining teaching load. Illinois faculty are given a one-course release during the semester they develop a new online course, and they are provided with a half-time teaching assistant each semester the course is offered.

The University of Louisville has a teaching and learning center that provides faculty support for their online program. They also provide their online faculty with training in the use of Blackboard™ software. The teaching load for their online courses is higher than the traditional face-to-face courses. However, both online and face-to-face courses are considered the same when determining teaching load. As an incentive, faculty are given a semester of release time to develop their courses. Their entire online faculty are full-time.

Western Carolina University does not offer incentives nor support services to their faculty, and new online faculty are not required to undergo formal training prior to teaching their online course. The teaching load for their HRD online courses is equivalent to a face-to-face course. In the same respect, an online course counts the same as a face-to-face course in determining teaching load.

Unlike the other institutions, online courses at the University of Minnesota are developed by outside contractors with minimal input from their faculty. Faculty receive no incentives for teaching online. Since course development is outsourced, the teaching load for online courses is generally lower than the face-to-face courses. As a result, the online and face-to-face courses do not count the same when determining teaching load. Their entire online faculty are adjunct.

The types of student support and services varied for each institution. With the exception of Bowling Green State University and the University of Minnesota, each participating institution offered some type of orientation to acclimate students to their online system. Indiana State University sends their online students a CD that contains instructions and a self-guided tour. The University of Illinois offers online training that requires students to practice using the course technologies by installing software, submitting documents, and verifying that they can receive streamed audio and video. The University of Louisville's student orientation consists of a review of technical requirements. Western Carolina University offers to their online students software training and tutoring on how to be an online student.

The Internet services that the institutions provide to their students also varied. All participating schools provided their students with an online library database and catalog. Most schools also provided online advising, course catalogs, e-mail access requests, grades, and registration. Table 2 gives a summary of all Internet services offered by each institution.

Online Course Development and Technologies

With the exception of the University of Minnesota, regular faculty design online HRD courses. Courses at the University of Minnesota are developed by outside contractors with minimal input from their faculty. At the University of Illinois, graduate students are also involved in course development. When asked how much of the total online program costs are attributed to course development, both Bowling Green State University and Indiana State University indicated less than 10%. Western Carolina University attributed 11% to 30% of their HRD online program costs to course development. The University of Illinois indicated that 31% to 50% of their costs are attributed to course development. Development costs were reported to be greater than 50% at the University of Louisville and the University of Minnesota.

Table 2. *Student Internet Services Provided by the Institutions*

	Advising	Bookstore	Career Planning	Course Catalog	E-mail access requests	Financial aid	Grades	Library (online catalog)	Payment	Registration	Study groups	Timetable	Transcripts	Tutoring
Bowling Green State University	x			x	x	x	x	x				x		
Indiana State University	x	x	x	x	x		x	x		x	x			x
University of Illinois	x	x		x	x		x	x	x	x	x	x	x	
University of Louisville								x		x				
University of Minnesota	x	x		x	x	x	x	x	x	x			x	
Western Carolina University	x			x	x	x	x	x					x	

The variety of technologies used to deliver online HRD courses includes audio conferencing, audio lectures (asynchronous and synchronous), chat rooms, e-mail correspondence, discussion conferencing (e.g., Web Board), video conferencing (synchronous), and video lectures (asynchronous). All participating institutions utilize chat rooms, e-mail, and discussion conferencing. Asynchronous audio lectures are used by half of the institutions. Table 3 details the technologies used by each institution.

Bowling Green State University anticipates an increase in the use of audio conferencing and discussion board technologies. Indiana State University plans to use more audio lectures, chat rooms, video conferencing, and video lectures. The University of Illinois intends to make greater use of video conferencing and video lectures. The University of Louisville indicated that they plan to make greater use of all available technologies. The University of Minnesota and Western Carolina University do not anticipate changing the technologies they are currently using to deliver online instruction.

Table 3. *Online Course Technologies Used*

	Audio conferencing	Audio lectures (asynchronous)	Audio lectures (synchronous)	Chat rooms	E-mail correspondence	Discussion conferences	Video conferencing (synchronous)	Video lectures (asynchronous)
Bowling Green State University				x	x	x		
Indiana State University	x	x		x	x	x		x
University of Illinois		x	x	x	x	x		x
University of Louisville		x		x	x	x		
University of Minnesota				x	x	x		
Western Carolina University				x	X	x		x

Online Models

Three models, the contractor model, the consortium model, and the independent program model, best characterize the HRD online programs presented in this paper. In the *contractor model*, courses are designed and developed by an outside contractor. This model is ideal for institutions that may not have the expertise to develop and deliver the online courses, technical support to maintain the courses, or the time to convert their face-to-face material to an online format. The University of Minnesota uses this model to deliver their online courses.

The *consortium model* involves a collaboration of universities where faculty from participating institutions deliver one or more online courses rather than an entire degree program. This model is useful for institutions that may not have enough faculty to teach online. The Ph.D. program offered at Bowling Green State University and Indiana State University is part of a consortium degree program, where Indiana State University serves as the home school. Other consortium members include Central Missouri State University, East Carolina University, Texas Southern University, University of Wisconsin-Stout, and North Carolina A&T.

Within the *independent program model*, institutions take full responsibility for the development and implementation of their online program. This model is ideal for institutions that want to have full control over the online program's structure, policies, and technologies. This model is also ideal for academic units that have the technological capacity to develop and support technical solutions for course development and delivery. For example, this model works well for the University of Illinois because its many doctoral students who are specializing in the field of instructional technologies are able to support the program and develop their technology skills through graduate teaching and research assistantships. The University of Illinois and the University of Louisville used the independent program model to develop their online program.

Discussion

This study introduced three models that can be used to deliver Internet-based HRD programs—the contractor model, consortium model, and independent course model. The contractor model includes courses that are offered by educational institutions but designed and developed by an outside contractor. The consortium model involves a collaboration of universities that are responsible for teaching one or more courses within a degree or certification program. Within the independent program model, the department assumes full responsibility for the entire online program.

At the onset of this study, over 107 North American AHRD institutions were identified as potentially offering HRD courses online. Of these 107 institutions, only 6 are offering web-based courses that are 100% online. Why are so few institutions offering HRD courses online? There are several plausible reasons for this; however, some main issues could be (1) the need for considerable technical support and expertise, (2) the initial startup cost, (3) the need to train faculty to teach online effectively, and (4) the enormous time commitment that is needed by the developers of online courses.

With these concerns, the authors offer some recommendations. For institutions lacking the technical support and expertise to develop online courses, one plausible solution is to outsource these services. This is the direction the University of Minnesota took by offering their online courses through outside contractors. Another solution might be for institutions to develop one online course per semester using the most basic, cost effective, and easy-to-use technologies. These technologies could include chat rooms, e-mail, discussion conferencing, and asynchronous audio lectures. The University of Louisville is an example of an institution that has taken this approach when they began offering one course during the summer of 2001. The idea behind this strategy is for institutions to start small until they gain more online experience.

If funding is a concern, organizations such as the Alfred P. Sloan Foundation (www.sloan.org) provide program development grants to universities to develop new online courses. These awards are intended to cover the one-time costs of converting existing course materials to a pedagogically sound online format. The Department of Human Resource Education at the University of Illinois converted their regular courses to an online format with financial support from the Sloan Foundation.

Institutions that do not have the faculty or staff to teach online courses may consider joining a teaching consortium as was done by Bowling Green State University and Indiana State University. Within the consortium, faculty from participating institutions deliver one or more online courses rather than an entire degree program. This arrangement "lifts the burden" off one institution so that it can be shared among many.

Time commitment is another barrier that may prevent institutions from offering online courses. Institutions may not have the time to develop the courses and at the same time may not have sufficient faculty to teach the courses. There are several solutions to this problem, many of which have already been addressed. Institutions could

outsource course development (University of Minnesota), they could become part of a consortium (Bowling Green State University and Indiana State University), or they could bring in adjunct faculty from other related departments to teach the online courses (Indiana State University, University of Illinois, University of Minnesota).

Rather than focusing on disadvantages to offering online courses, it is essential that institutions consider the benefits of offering Internet-based courses. One main advantage to offering Internet-based courses is that it allows institutions to reach other markets they would not have been able to reach otherwise. This includes the international population, working professionals, and single heads of households. Another advantage is that it increases institutional prestige. By offering online courses, institutions can serve as models for others seeking to offer similar Internet-based courses. As a result, popularity increases and ultimately the student population increases (online as well as face-to-face).

Future Research Implications

Technology is rapidly changing and is impacting the way institutions deliver Internet-based courses. Online technologies used today differ from the technologies used five or more years ago. Moreover, institutions that have offered online programs for a while are familiar with the various technologies and are able to offer more "online amenities" to their students. For example, the University of Louisville, who recently began offering Internet-based HRD courses, provides their online students with a limited number of online services. In contrast, Indiana State University, where over 125 students have completed their degree online, provides their students with numerous services online. A research study could be conducted to compare HRD online programs that have been offered less than a year, 3 years, and 5 or more years. An interesting research question would be: How does the structure and format of an online program change over time?

The results of this study also indicate that institutions vary in their use of online course technologies. Future studies should investigate the reasons why some online course technologies were chosen over others (i.e., the advantages and disadvantages of using various online technologies). Some possible research questions could be:

1. How do training requirements differ for each course technology?
2. Which technologies promote greater student-to-faculty and student-to-student interaction?
3. Which technologies best enhance student learning?

The University of Illinois utilizes synchronous audio lectures in their online courses. Another interesting research study could determine if synchronous sessions are worthwhile. Factors such as student questioning, student-student interaction, and student-faculty interaction could be compared between synchronous and non-synchronous audio modules. Some possible research questions would include:

1. How satis fied are faculty and students with the synchronous lectures?
2. Do student-faculty and student-to-student interactions increase in the synchronous lectures?
3. What factors promote quality synchronous interaction?

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Applying Metaphor in HRD Research and Practice: Innovative Session

Darren C. Short
Perspectives Inc., UK

Alexander Ardichvili
University of Illinois

Barbara J. Daley
University of Wisconsin – Milwaukee

Erica Kalata
Deloitte

Theresa J. Kraemer
University of South Florida

K. Peter Kuchinke
University of Illinois

Verna J. Willis
Georgia State University

This paper provides information on the innovative session in the form of a brief theoretical framework, a set of session objectives, and a description of the process. It is intended to inform conference participants as they make the decision about whether to attend the session, and to provide them with background reading prior to the session.

Keywords: Metaphor, Research Design, HRD Practice

"... metaphors are capable of giving us a new understanding of our experience. Thus they can give new meaning to our pasts, to our daily activity, and to what we know and believe" (Lakoff & Johnson, 1980, p. 139).

Volume 3, issue 3 of the series *Advances in Developing Human Resources* (ADHR) was dedicated to Metaphor in Human Resource Development. It brought together articles written by some of the HRD scholars who have been at the forefront of exploring the current, and potential, use of metaphor in HRD research, practice, and education. Part of the history of that issue can be traced back to an innovative session on metaphor held during the 2000 AHRD conference in Raleigh-Durham. This session will further the work by providing a vehicle for facilitating dialogue between the authors and readers on the content of the ADHR issue with the view to clarifying understanding, exploring the application of metaphor in HRD research and practice, and highlighting options for collaborative research. The session will give equal weight to application of metaphor in HRD research and practice, as well as to theoretical aspects of metaphor.

This brief paper provides a theoretical framework for the session, and outlines the session objectives and design. Conference attendees are also invited to read other papers on metaphor elsewhere in the conference proceedings.

Theoretical Framework

Despite there being well over 125 documented definitions of metaphor (Leary, 1990), there is a clear tradition that views them as central to the task of accounting for our perspectives on the world (Cameron, 1999). This cognitive stance argues that people not only use metaphorical language, but the way they view the world is structured using metaphor that frame realities. Metaphors are therefore considered to not only influence language but also behavior. As such, the metaphors used in HRD (as elsewhere) influence how reality is framed by those in the field, how

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problems are conceptualized, how solutions are designed, and how efforts are evaluated (Tsoukas, 1991). That nature of that influence could benefit or hinder the field but, without an explicit analysis of the impact of metaphor on HRD, those in the field will be unaware of the benefits, the hindrances, and how to change the situation. This gives rise to discussions on how perspectives, language, and behavior of those in HRD can be influenced by changing the metaphors-in-use.

Metaphor analyses have been completed for several fields of study, for example: psychology (Leary, 1990), human resource management (Dunn, 1990), information systems (Kendall & Kendall, 1993), organizations (Morgan, 1997), and teaching (Cortazzi & Jin, 1999). The ADHR issue on metaphor made a major contribution in closing the gap between HRD and other disciplines in the level of attention paid to metaphor. It did that in the areas of:

- Understanding metaphor theory: Summarizing metaphor theory and research from the disciplines of applied linguistics and cognitive-psychology, and in so doing highlighting the importance of further research into HRD metaphor.
- Learning about HRD from current metaphors-in-use: Research was reported that studied metaphors in the language of HRD, with analyses of what those metaphors may tell us of how we conceive of HRD, what values underpin our language and behaviors, and how aware HRD professionals are of the metaphors they use and their potential implications.
- Metaphors in HRD research, practice, and education: Examples were provided of how metaphors were collected and analyzed in HRD research, of how metaphors could be (and were being) used by HRD practitioners both in training and in organizational change, and of how metaphors could be used in the education of HRD academics and practitioners.
- Critical analysis of metaphor in HRD: Dominant metaphors were highlighted, as was the need to challenge such metaphors and generate new metaphors that could influence how situations were perceived and actions were designed. Examples were offered of how different surface metaphors could influence conceptual metaphors and behaviors in HRD.
- Strategies for metaphor in HRD: Cross-cutting analysis of the content of the issue, when combined with work of other scholars, led to the first steps in understanding the concept of best practice in HRD research, practice, and education.

Short (2001), when reflecting on the content of the ADHR issue, highlighted six main implications for HRD, and five of those six form the basis of this innovative session. The five are:

- HRD researchers should increase their understanding of the application of metaphor in data collection, analysis, and reporting; paying attention to the options, benefits, and risks. They would be helped by the development of agreed best practice in the use of metaphor in HRD research.
- HRD practitioners need to reflect critically on the metaphors that drive their work within organizations, including the dominant metaphors they use for conceiving of organizations and their role in them. That process would be supported greatly by the sharing of practices, for example through conference papers and journal articles.
- Metaphor should be considered for inclusion in the education of HRD professionals, both in terms of theory and its application to HRD. For example, the development of HRD practitioners could usefully cover methods for applying metaphor in organizational diagnosis, intervention design, and communication during planned change.
- HRD professionals should continue to explore the application of metaphor in other disciplines and consider its suitability for transferring into HRD, as demonstrated through the application of metaphor in psychotherapy and the potential for its use in HRD consultancy, coaching, and counseling.
- Systematic research is needed to fully understand the impact of metaphor on HRD. In completing that, the discipline would benefit from challenging dominant metaphors and questioning how those lead to practices and beliefs that are currently taken for granted.

Session Objectives

The innovative session is designed with the over-arching objectives of:

- Facilitating a dialogue between those who wrote for, and those who read, the ADHR issue on metaphor in HRD, to allow questions to be raised, and provide further clarification on the application of metaphor in HRD.
- Extending the dialogue beyond the ADHR issue by exploring the application of metaphor in HRD research and practice using case studies (linked to a symposium paper on the use of client- and consultant-generated metaphor in HRD practice).
- Identifying new opportunities for research into HRD metaphor and a network of interested researchers.

Within those over-arching objectives, the session will provide a forum where:

- Researchers can discuss the application of metaphor in data collection, analysis, and reporting; paying attention to the options, benefits, and risks. Research described in the ADHR issue will act as the introduction to metaphor application in HRD research, and a case study will then be used to provide the basis for small group discussions of application options, methods, and issues.
- Practitioners can reflect critically on their use of client metaphors to analyze situations and identify potential interventions. Again, the case study will provide the broad context for the discussion on application by HRD practitioners.
- All participants have the opportunity to explore the theoretical foundations on metaphor, and the links between metaphor, cognition, behavior, and behavior change.

Session Content and Structure

The session will be designed in four parts:

- Introduction – Participants will hear an overview of the session, and be introduced to the facilitators. This part will also include definitions of metaphor, introductions to the language of metaphor (e.g. labels), illustrations of the various forms of metaphor, and descriptions of the theoretical links between metaphor, behavior, and behavior change. Speakers will also illustrate the use of metaphor in HRD research and practice, and in so doing to provide participants with an understanding of methods and issues for use later in the session.
- Group discussions on metaphor in HRD research and practice – In small groups, participants will utilize a case study to apply basic metaphor techniques, both from the context of the researcher and the practitioner. This will allow for discussion, thus increasing the opportunity for participants to raise examples, ideas, issues, and concerns. Participants will also have the opportunity to dialogue with ADHR authors over the application of metaphor in HRD research and practice.
- Group discussion debriefing – Each small group will share a summary of its discussions and conclusions; and facilitators will identify cross-cutting agreements, concerns, and questions about metaphor application in HRD research and practice.
- Summarizing learning – main learning points will be identified and summarized.

Is this New and Innovative?

The session is innovative in several ways:

- It uses a session at an AHRD conference to maintain the momentum from an ADHR issue, in part by facilitating dialogue between authors and readers, and in part by supporting application of ADHR learning points through case studies discussed in small groups.
- It furthers work on five of the six 'main implications' identified by the ADHR, thus moving forward a small step on a lot of fronts.
- It provides participants with the opportunity to discuss and apply material from a symposium paper on the application of metaphor in psychotherapy and lessons for HRD.
- It allows for levels of participation and interaction not possible from symposia sessions.
- It provides a forum for identifying new examples of metaphor application in HRD research and practice, as part of continuing work to describe best practice. These will be used in the design of future research.

What this Session Contributes to HRD

With reference to the session's stated objectives, its contribution to HRD includes the following:

- Facilitating a dialogue between those who wrote for, and those who read, the ADHR issue on metaphor in HRD – this will allow for questions about the issue to be raised, provide further clarification on the application of metaphor in HRD, elicit new examples and viewpoints on metaphor in HRD, further clarify current knowledge on best practice, and identify new opportunities for research into HRD metaphor.
- Providing conference attendees with the opportunity to apply metaphor in small groups case study discussions, thus increasing their understanding of application techniques.
- The session content will be summarized and used in writings on best practice in applying metaphor in HRD.

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Managing Culture in the E-Workplace: The Practitioners' Perspectives

Catherine Marie Sleezer
Oklahoma State University

Cathy Bolton McCullough
Francis Tuttle Technology Center

Roger L. Cude
McLeodUSA

This session engages human resource development (HRD) practitioners in analyzing organization cultures in their e-workplaces. Participants will consider how the cultures of their organizations are changing in response to information technology (IT). Exercises will focus on the four levels of systems thinking reflected in Senge's Iceberg Model: Events, Patterns of Events, Structures, and Mental Models. Participants will share resources for improving the culture in e-workplaces and identify research and resources that are needed.

Keywords: Culture, Information Technology, Needs Analysis

Session Purpose

As organizations grasp for alignment using the new information technology (IT) tools of business, many leaders find themselves adjusting to new ways of working. Kanter (2001) identifies the following essential questions for today's organizations: How should organizations change in order to succeed in a digital world? What should an organization's new ways of working look like for maximum impact on profitability, employee satisfaction, quality, innovation, etc.? This session will explore answers to these questions. The goals of this session are to

1. bring cultural patterns of the e-workplace to the forefront,
2. discuss the impact of culture on performance improvement in the e-workplace, and
3. share resources for stimulating change in the way people within e-organizations work.

Content of Session

In this session, participants will practice using Senge's (2000) Iceberg Model as a lens for viewing culture in their own organizations. Participants will also engage in reflection and dialogue about the responses to the IT challenges in their various organizations, about resources for addressing the challenges more effectively, and about needed research in this area.

Theoretical Framework

HRD professionals, who are responsible for managing and facilitating culture change in organizations, are increasingly challenged to help position their organizations within the new Internet Age economy. They interact with two important influences in the Internet Age: information technology (IT) and people. People create IT uses, and they also create the pathways for exchanging information within organizations. The way people interact with IT and other factors in accomplishing their tasks influences how the organization's work gets done and the outputs that result (Lawson & Sleezer, 2001; Van Buren, 2001). For example, organizations today are using new IT applications to move beyond providing stakeholders with information, to automate processes, and finally to transform them (Christie, 2001).

Many organizations initially viewed IT strategies as golden rings for repositioning their organizations. However, for many the initial challenge of getting hold of a golden ring proved easy when compared to the challenges of managing IT use for improving performance. "Taking full advantage of the potential of the Internet Age requires leaders to lead differently and people to work together in new configurations" (Kanter, 2001, p. 7). Because an organization's culture facilitates or constrains actions and interactions, culture change provides important leverage for performance improvement.

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Organization Culture

Researchers, scholars, and business authors have been enthralled with the concept of business culture (Clark, 1972; Deal & Kennedy, 1982; Ouchi, 1981, Pettigrew, 1973, Sathe, 1983, 1985; Schein, 1985, 1989, 1990). Culture is a construct that has been viewed in various ways. It has been viewed as a manifestation of a leader's style of management (Petty, Beadles, Chapman, Lowery, & Connell, 1995). In addition, linkages have been drawn between various cultural dimensions and bottom-line performance (Denison, 1984, 1990, 1996). Culture appears to have deep roots in the mental models (i.e., in the assumptions and beliefs regarding expectations) that are held by organizational members about all organizational operations. Employees tend to build expectations based on their personal experiences, peer pressure, myth, gossip, and wishful thinking. In all likelihood, that will not change. But what can change is what people do with the result (Weick, 1995).

Denison believes that the mental models of organizational members are not totally transparent, but, instead, are manifest in expressed behaviors. Furthermore, they are expressed as behaviors and are, therefore, quantifiable. According to Schein (1999), culture matters because decisions that are made without awareness of the underlying cultural forces may have unexpected and undesirable consequences.

As technology provides new pathways for doing work, it also challenges "tried and true" management practices. How will organizations adapt? What will successful e-organizations look like? Today, some routines have begun to look different (e.g., on-line ordering, customer service, project management). However, the effectiveness of organization change initiatives has been estimated at only 10-20% at best (Ashkenas, 1995). Furthermore, Ardichvilli (2001) stated that the primary reasons for failing to accept new patterns of work provided by IT are an overemphasis on technology-based solutions and a lack of attention to the human component of the equation. The rate of failure in strategic change initiatives indicates that success variables have yet to be explicitly defined and/or internalized by leaders and employees (Boyett, 1995).

To be most effective IT changes must be integrated with an organization's core beliefs, processes, and practices. In essence, organizations are on the verge of needing a massive culture change—a change in the way work is done, performance is measured, and employees are recruited and retained (Meeder &Cude, 2001). Of course, while these changes are occurring, successful organizations must continue to operate as financially sound, innovative, and quality-driven business enterprises.

The shift required of leaders today is from looking at skills and process behavior to examining mental models (i.e., values, attitudes, and beliefs) of the organization and its employees (Lee & Zemke, 1993). This shift must begin with an organization's greatest asset: its people. Leaders are quick to talk about rapid change, but research suggests that less than 10% of companies desiring to creatively and productively implement new technology into their ways of work are successful (Boyett, 1995). Morrison & Schmid (1994) noted that implementing new ways of work requires education, people skills, clear communication, and incentives. In other words, culture change is a requirement for organizations that want to compete most effectively in the Internet Age economy.

Debates continue about how to leverage an organization's culture for success, how to develop it, and how to change it. Indeed, culture might be the most important variable for creating, supporting, and sustaining bottom-line results in today's new economy (Fisher and Alford, 2000).

Systems Theory

Systems theory is foundational to the HRD profession. Integrating systems with the researched-based knowledge of culture's impact on organizational performance (Denison, 1990; 1996), can help HRD practitioners consider effective organizational change strategies relative to IT's impact on the current mental models of work and performance.

IT provides a relatively new influence on organizational performance. Leaders value IT because it provides 1) many new options for action and 2) links among individual employees and among organization functions. However, the more variables and the greater the interdependence of variables, the greater the systemic complexity (Dörner, 1996). Humans often do a poor job of understanding complex systems (Dawes, 1988; Dörner, 1996).

Tools for understanding how variables interact to produce results can be found in the literature of systems thinking. One such tool is the Iceberg Model (Senge, 2000). Senge shows the frozen ice that is visible above water and the larger ice mass that is invisible below the water. The ice below the water supports the visible portion of the iceberg. In the Iceberg Model, visible events are like the portion of the iceberg that is above water. The patterns of events are just below the water. The systemic structure that supports the patterns of events can be found at a deeper level, and the mental models that support the structures are found at the deepest level.

Because organizational cultures include aspects that are visible as well as deeper aspects that are not visible, the Iceberg Model is a useful tool for exploring this construct. According to Denison (1996), beliefs drive behaviors. In turn, behaviors drive results. Therefore, it is practical to approach organization culture via its most direct dimension: how people act as captured in organizational events. Systematic reflection on such events can reveal patterns of events and the systemic structures and mental models that support them.

In summary, IT offers a new set of solutions that can help organizations function more strategically, while also employing the flexibility necessary to improve innovation, quality, employee satisfaction, and positive bottom-line results. Using IT to effectively produce business results requires changing to the technology that best enables e-organizations to do their work. This may be the easier change to make. Changing the internal processes of the organization to maximize the contribution of IT and human resources may be a harder goal to reach. "The narrow question: How do we structure our e-business unit? The broader question: How do we change our whole organization? The first is oriented toward presenting the best face to outside audiences. The second recognizes that the biggest challenge is inside" (Kanter, 2001, p. 169).

Most organizations literally have decades "of history baked into their cultures and processes. Technology and the Internet are not coded into their organizational DNA --at least not yet" (Christie, 2001, p. 45). HRD professionals who help guide organizations in culture change efforts can benefit from using a systems lens to reflect on the culture of their organizations. They can also benefit from discovering how culture changes in the e-workplace vary across organizations. Finally, they can benefit from knowing the available and needed resources and research.

Description of Format

Participants will form small groups of six. This session begins with a brief *introduction* of the topic and the Iceberg Model. Organization culture will be discussed, and questions of interest relative to the e-patterns of work will be posed to the group.

In the second phase, participants *apply* the Iceberg Model to identify events and patterns of events. After working individually to *reflect* on an organization's IT events and then patterns of events, participants then interact in small groups to *discover* the commonalities among events and patterns of events across organizations. We will compare the participant's responses to the events and patterns of typical organizations from Lawson and Sleezer's 2001 study.

The third phase will replicate the process of phase 2 but will focus on systemic structures and mental models. We will compare the participant's responses to the structures and mental models of typical organizations from Lawson and Sleezer's 2001 study.

The fourth phase will be an *all-group discussion* about insights gained from the first three phases (15 minutes). The discussion will also include the resources and research that are available and those that are needed.

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Investigating the Association Between Productivity and Quality Performance in Two Manufacturing Settings

Constantine Kontoghiorghes
Oakland University

Robert Gudgel
Pennsylvania College of Technology

The main purpose of this study was to examine the relationship between productivity and quality performance in two manufacturing settings. In all, the results of this study have ascertained the close association between quality and productivity performance and suggested that investments in quality should indeed result in productivity gains. The quality management variables that were found to be the strongest predictors of productivity performance were those pertaining to internal process satisfaction, external customer satisfaction, and consistent delivery of work output in a complete fashion.

Keywords: Productivity, Quality, Performance

As highlighted by ASTD's "Human Resource Wheel" (McLagan, 1989), the ultimate desired outcome of HRD interventions is improvements in productivity, quality, innovation, human resource fulfillment, or readiness for change. It is also widely known that in today's very competitive and customer driven markets both productivity and quality have become a very important strategic priority for most organizations. Yet, despite their importance, HRD research in the area of productivity and quality performance has been almost non-existent. The main purpose of this empirical study is to address this limitation of HRD research and thus examine the relationship between productivity and quality performance in two manufacturing organizations.

Perhaps the lack of research in the productivity and quality improvement area can be attributed to the conflicting points of view pertaining to the compatibility of the productivity and quality improvement approaches. Manufacturing managers in the U.S. and Western Europe have traditionally argued that improvements in product quality are costly and do not result in commensurate improvements in productivity (Womack, Jones, & Roos, 1990; Mohanty, 1998). This belief has been challenged since the mid twentieth century by quality experts who have suggested that improvements in quality also result in productivity increases. One of the earliest experts to suggest a link between productivity and quality was Feigenbaum (1961) who stated that "productivity is increased by emphasizing the positive control of quality rather than after -the- fact detection and rework of failures" (p. 20). Deming (1982, 1986) argued that improvements in quality do create corresponding improvements in productivity by reducing costs, errors, rework, and delays. Feigenbaum (1961) indicated that "with the balanced manufacturing capability for quality production in place, productivity rises as costs per unit decrease" (p. 20).

Quality has been described as satisfying customers (Spencer,1994), conformance of a product to established standards (Crosby, 1979, Garvin, 1984, Lindsay & Petrick, 1997), and desired characteristics and value of a product as defined by the customer (Womack and Jones, 1996). Womack and Jones (1996) further suggest that "value can only be defined by the ultimate customer and it is only meaningful when expressed in terms of a specific product (a good or a service, and often both at once) which meets the customer's needs at a specific price at a specific time" (p. 16). Quality of services has been described as timeliness of providing services when requested by customers, completeness of services provided, courtesy to customers, consistent service quality and responsiveness to customer needs (Lindsay & Petrick, 1997). Finally, Japanese quality expert Masaaki Imai (1986) suggested that "in its broadest sense, quality is anything that can be improved" (p. 9).

Productivity is commonly defined in terms of output to input ratios (Sumanth, 1981a, 1981b), the number of processes a worker can handle during the time necessary for producing one unit (Monden,1993), or simply as efficient use of production resources (Monden, 1993; Womack & Jones, 1996). Productivity has also been described by various performance measures such as machine utilization, schedule performance, and cost variances (Huge, 1990). Another description of productivity is output divided by an organization's total headcount (Huge, 1990). By any of these definitions, productivity is viewed as an outcome which is measured against resources expended to create that outcome.

Organizations that have succeeded in improving productivity and quality have typically used approaches such as total quality management (TQM), continuous improvement (also called kaizen), or lean manufacturing principles (also called the Toyota production system). TQM has been defined as a customer focused strategy involving all employees in continuous improvement of processes, products, and services (Herron, Bohan, & Meyer, 1997). TQM

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has also been described as "a group of methods and techniques for enhancing competitive performance by improving the quality of products and services (Grant, Shani, & Krisn, 1994, p. 26). Relative to service industries, the TQM concept has been called total quality service (TQS) and defined as "a true commitment to operationalizing the concept of customer focus, establishing service performance standards, measuring performance against benchmarks, recognizing and rewarding exemplary behavior so as to increase sales and market share" (Stamatis, 1996, p. 43).

Relative to creating and maintaining effective work areas, a process called 5 S's has been used as part of lean manufacturing practices (Monden, 1993). 5 S principles require employees within their work areas to eliminate unnecessary equipment and clutter (sort), organize work areas for ease of using tools and equipment (set in place), maintain cleanliness of work areas (shine), use standard procedures and visual aids to process work (standardize), and comply with the first four S's (Sustain). Womack and Jones (1996) suggest that use of 5 S principles is an important step towards creating and maintaining work areas which promote better quality and productivity.

Related to TQM and lean manufacturing are the concepts of Kaizen or Continuous Improvement (Monden, Shibakawa, Takayanagi, & Nagao, 1985; Imai, 1986). Kaizen means continuous incremental improvement of quality and productivity processes to help meet organizational goals (Imai, 1986). Kaizen also means using employee ideas and participation to accomplish these quality and productivity improvements (Imai, 1986).

In all, the concepts of TQM, lean manufacturing, and kaizen seem to incorporate many common characteristics that help organizations improve quality and productivity. These common elements can be summarized as process improvement, employee involvement, reduction of waste, performance measurement, benchmarking against competitors and the best organizations, focus on customer needs, control of product and service quality, control of costs, a learning culture, and mutual help to provide quality inputs in a timely manner.

A five year worldwide study of the automotive industry by Massachusetts Institute of Technology revealed that certain assembly plants had concurrently achieved high quality and high productivity (Womack et al., 1990). These plants were managed using lean manufacturing (Womack et al., 1990) or the Toyota production system (Monden, 1993). Lean manufacturing is characterized by prevention of errors and defects, simple and synchronized manufacturing processes, speed in changing from production of one product to another, and a major focus on elimination of various forms of waste such as unneeded inventory and unnecessary movement of products. Lean Manufacturing includes employee control of quality decisions, employee involvement to improve processes, error-proofing of work output, and use of 5S principles. (Womack et al., 1990; Monden, 1993).

A case study by Gudgel and Feitler (2000) documented a quality management intervention in a manufacturing firm that resulted in concurrent improvements of 57% in quality and 81% in productivity. A single quality management intervention was able to produce a dramatic and simultaneous improve in both quality and productivity. The documentation of these improvements support Deming's concept of better quality resulting in better productivity and the link between quality and productivity variables proposed in this study.

An empirical study by Kontoghiorghes and Bryant (2001) examined the link between quality and productivity in a service non-profit organization in the health care insurance industry. Positive and strong correlations were found between the investigated quality and productivity indicators. The Kontoghiorghes and Bryant study further identified the quality indicator "work output by peers is consistently delivered in a complete fashion" to be the strongest predictor of two of the three productivity indicators investigated (work output by peers exceeds expectations; inputs from peers are received in a timely fashion). This study also found satisfaction with internal processes, to be the strongest predictor of the productivity indicator of "cost effective production". Other quality indicators and variables that were found to be strong predictors of the investigated productivity indicators were: satisfaction with quality of peer work output; emphasis on doing things right the first time; measurement of product or service quality at every step of the process; organization focus on process improvement; and, decision making involvement. In all, the results of this study highlighted the close association between quality and productivity performance in a service environment and suggested that investments in quality should indeed result in productivity gains.

Despite some anecdotal evidence that suggests a strong association between quality and productivity performance, still many today consider the two as antithetical approaches. As Deming (1986) put it, "folklore has it in America that quality and production are incompatible: that you can not have both. A plant manager will tell you that it is either or. In his experience, if he pushes quality, he falls behind in production. If he pushes production, his quality suffers" (p. 1). According to Mohanty (1998), however, "it is productivity (value addition) and quality (value enhancement) that determine competitiveness. To remain competitive, organizations need to integrate and synergize both productivity and quality" (p. 759). Despite the need to integrate and synthesize the quality and productivity approaches, very little empirical research has been conducted to examine the commonality between the two (Mohanty, 1998).

Purpose of the Study

As it was stated in the introduction, the main purpose of this study was to examine the relationship between productivity and quality performance in two manufacturing organizations. In doing so, the relationship between distinct quality and productivity indicators was assessed and described. Further, this study attempted to identify and describe organizational variables that are commonly important for quality and productivity performance. Lastly, this study attempted to determine the extent to which the findings of the Kontoghiorghes and Bryant (2001) study in a service non-profit organization could be validated in a manufacturing setting as well.

The organizational dimensions that were assessed in this study were: continuous improvement practices, quality management, the learning culture of the organization, management practices, employee involvement, organizational structure, reward systems, job design, innovation practices, technology management, knowledge management, and teamwork. The quality indicators considered in this study were: external customer satisfaction; customer loyalty, satisfaction with quality of work output by peers; work output by peers is consistently delivered accurately; internal process satisfaction; the extent to which all products or services produced meet established specifications; on-time delivery of products or services; the extent to which employees react quickly to resolve unexpected problems; the extent to which no further changes or rework is needed after the final products or services are produced; and, the extent to which no scrap is produced.

Productivity in this study was measured in terms of the following indicators: the extent to which the amount of work output by peers exceeds expectations; the extent to which products or services are produced in a cost effective manner; and, the extent to which inputs are received from others in a timely fashion.

Research Questions

The main research questions for this study were:

1. What is the relationship between the identified productivity and quality indicators?
2. Which of the quality management variables incorporated in the study can also serve as predictors for productivity performance?
3. To what extent do the results of this study, which was conducted in the manufacturing domain, validate those of the Kontoghiorghes and Bryant study, which was conducted in a service non-profit organization?

Methodology

Instrument. The instrument of this study consisted of a 108 Likert item questionnaire, which was designed to assess the organization in terms of the earlier described dimensions and indicators. Many of the dimensions and indicators were assessed with scales that were used or described in previous literature or research (Buckingham & Coffman; 1999; Hackman & Oldham, 1980; Kontoghiorghes, 2001a; Kontoghiorghes, 2001b; Kontoghiorghes & Dembeck, 2001; Lindsay & Petrick, 1997; Macy & Izumi, 1993; Pasmore, 1988; Whitney & Pavett, 1998), while several were custom-designed specifically for this and other studies. In all, the questionnaire attempts to determine the extent to which the organization is functioning as a high performance system and according to TQM and sociotechnical systems theory principles. Further, the instrument assesses the extent to which the organizational environment is conducive to training transfer and a continuous learning culture.

The instrument utilized a six-point scale that ranged from "strongly disagree" to "strongly agree". The first version of the questionnaire, which consisted of 99 Likert items, was originally pilot-tested on a group of 15 participants for clarity. Furthermore, a group of seven experts in the organization development, human resource development, or quality management areas reviewed the instrument for content validity. Upon revision, the instrument was then administered to a group of 323 members of five different organizations. Reliability tests were conducted and the instrument was further refined and expanded. As stated earlier, in its final format the instrument consisted of 108 Likert items. The reliability of the instrument was measured in terms of coefficient alpha and was found to be 0.98.

Subjects. The sampling frame of this study consisted of 179 employees of a manufacturing facility in Texas and 60 employees of manufacturing facility of a different organization in Michigan. Both facilities manufactured products used in the auto industry. The surveys were administered internally by an Organization Development manager in the Texas facility and a Human Resource manager in Michigan. The surveys were given to all members of both facilities. In all, 134 of the employees of the Texas facility (74.8%) and 55 of the Michigan one (91.6%) returned the surveys. Collectively, 189 of the possible 239 participants returned the surveys and thus the overall response rate is calculated at 79.08%. In short, 81.1% of all respondents were hourly employees, 1.8%

administrative personnel, 7.7% salaried professional, 4.7% supervisors, 4.1% middle management, and 0.6% senior management. 75.9% of all respondents were male and 24.1% female. In terms of education, 64.3% of the respondents had a high school degree, 19.1% an associates, 7.6% a bachelors, 3.2% a masters, and 1.5% a Ph.D.

Data Analysis. The research questions of this study were answered through the use of correlational and regression analyses. In particular, through Pearson correlations the relationship between the identified productivity and quality indicators was described. Further, through stepwise regression analyses the most important quality management variables for productivity performance were identified and described.

Results and Findings

Correlational Analysis. The Pearson correlations between the productivity and quality indicators are displayed in Table 1. Table 1 further depicts the average correlation of each quality indicator with the respective productivity indicators as well as the average correlation between each productivity indicator and the respective quality ones. As shown, all quality indicators were found to be positively and significantly correlated with every one of the productivity indicators. The correlations ranged from 0.292 to 0.739 and were significant at the 0.01 level. In sum, the correlational data in Table 1 indicates that each productivity indicator exhibited an average correlation of 0.46 or higher with the corresponding quality indicators. This result indeed confirms the close association between productivity and quality performance. The quality indicator that was found to exhibit the highest correlations with the respective productivity indicators was *internal process satisfaction* (Avg $r = 0.603$; $p < 0.01$). The especially high correlation between internal process satisfaction and cost effective production ($r = 0.739$; $p < 0.01$) demonstrates that an emphasis on continuous process improvement, which is one of the cornerstones of total quality management, will ultimately result in more cost effective production and thus improved productivity and profitability.

The quality indicator that exhibited the second highest average correlation with the productivity measures was the extent to which work output by peers is consistently delivered accurately (Avg $r = 0.532$; $p < 0.01$). This finding suggests that an emphasis on the quality of work output by everybody in the organization will result in more efficient and timely operations which in turn positively affect productivity. External customer satisfaction was the third quality indicator that was found to be highly associated with the productivity (Avg $r = 0.519$; $p < 0.01$). This finding in essence validates the main hypothesis of this study and Deming's assertion that a quality driven culture which makes external customer satisfaction a number one priority will ultimately function in productive ways as well. It is widely known that external customers demand timely services as well as reliable and functional products at a reasonable price. Thus, organizations that are truly customer driven are the ones that are characterized by streamlined, timely, and efficient processes as well as a special focus on product quality. Given that streamlined, timely, and efficient processes as well as product quality result in speed, less waste and rework, it is not surprising that external customer satisfaction was found to be highly associated with all productivity indicators.

The other three quality indicators that were found to exhibit an average correlation of 0.5 or higher with the productivity ones were the extent to which work output by peers is consistently delivered complete (Avg $r = 0.513$;

Table 1. *Pearson Correlations Between Productivity and Quality Indicators*

Quality Indicators	**Productivity Indicators**			
	Amount of work output by peers exceeds expectations	Inputs are received from others in a timely fashion	Products or services are produced in a cost effective manner	Average correlation of each quality indicator
Internal process satisfaction	.569**	.502**	.739**	.603**
Work output by peers is consistently delivered accurately	.465**	.616**	.516**	.532**
External customer satisfaction	.623**	.387**	.547**	.519**
Work output by peers is consistently delivered complete	.422**	.653**	.465**	.513**
Satisfied with quality of peer work output	.450**	.590**	.494**	.511**
No change or rework needed after final products are produced	.524**	.406**	.580**	.503**
Produced products/services meet specifications	.486**	.345**	.623**	.485**
On-time delivery of products/services	.431**	.471**	.540**	.481**
External customer loyalty	.409**	.391**	.498**	.433**
Employees react quickly to resolve unexpected problems	.452**	.411**	.342**	.402**
No scrap produced	.315**	.292**	.348**	.318**
Average correlation of each productivity indicator	.467**	.460**	.518**	

** Correlation is significant at the 0.01 level (2-tailed). Listwise N=182

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$p < 0.01$), the extent to which employees are satisfied with the quality of work output they receive from their peers (Avg $r = 0.511$; $p < 0.01$), and the extent to which no change or rework is needed after the final products are produced (Avg $r = 0.503$; $p < 0.01$). Again these three correlations together empirically validate the strong association between productivity and quality performance and the importance of making quality a top priority. In terms of the remaining correlations displayed in Table 1, the quality indicators below were found to exhibit the following correlations: produced products or services meet specifications (Avg $r = 0.485$; $p < 0.01$); on-time delivery of products or services (Avg $r = 0.481$; $p < 0.01$); external customer loyalty (Avg $r = 0.433$; $p < 0.01$); employees react quickly to resolve unexpected problems (Avg $r = 0.402$; $p < 0.01$); and, no scrap produced (Avg $r = 0.318$; $p < 0.01$). In all, the results of the correlational matrix displayed in Table 1 indicate a high association between quality and productivity performance and thus the compatibility of the quality management and productivity improvement interventions. In sum, the correlational data in Table 1 empirically validates Deming's assertion that as quality improves, costs decrease because of less rework, fewer mistakes, and fewer delays.

Regression Analyses. As shown in Table 2, the three stepwise regression models identified the stronger predictors of each one of the productivity indicators. Interestingly enough, the strongest predictor for each productivity indicator pertained to a quality indicator, which once again demonstrates the strong association between productivity and quality performance.

With regard to the first productivity indicator, *"amount of work output by peers exceeds expectations"*, the five predictors selected by the stepwise regression model accounted for 50.4% of its total variance. Accounting for 35.5% of the total variance, external customer satisfaction was found to be by far the strongest predictor of work output exceeding expectations. This finding in essence confirms the importance of having an organizational culture that is customer driven and highlights that quality and productivity are not antithetical constructs. Quality does indeed yield productivity gains. The second predictor selected by the regression model was the extent to which employees in the organization receive rewards based on their performance. In a way this finding validates expectancy theory and demonstrates that when an employee believes that his or her performance will result in desired outcomes then he or she will be more motivated to perform. The third predictor into the model was the extent to which the organization does not have turnover problems. This result is important in the sense in today's constantly downsizing and restructuring corporate world employee commitment has become a secondary concern. Yet, as the results of this regression model show, employee turnover problems can be detrimental to productivity and hence organizational competitiveness. Turnover causes disruptions to operations, especially when key and talented people leave the organization. It takes a while and often considerable training before newcomers reach the same proficiency level. Thus, building organizational systems capable of attracting and retaining employees can be considered very important when employee output is of prime concern.

The last two variables selected by the stepwise regression model were the extent to which no change or rework is needed after the final products are produced as well as the extent to which the employee is motivated to transfer the newly learned skills and knowledge back to the job. With regard to the former variable, it is clear that the less the organization invests its energies and manpower to redoing defective work the more productive it will be. Further, this finding once again validates Deming's philosophy—i.e. a focus on quality will ultimately result in productivity gains and cost reduction due to less rework, fewer mistakes, and fewer delays—and thus reinforces the notion there is a strong association between quality and productivity performance. In terms of motivation to transfer, its inclusion in the regression model exemplifies the importance of training transfer and why the organizational environment should be designed to facilitate it. Simply put, the more employees transfer what they learn back to the job, the more productive they will be.

The second stepwise regression model in Table 2 pertains to the productivity indicator of *"cost effective production"*. In all, the five predictors selected by this regression model accounted for 65.4% of the total variance of this productivity indicator. The strongest predictor by far was internal process satisfaction, which accounted for 54.7% of the total variance of cost effective production. Taking also into consideration the fact that internal process satisfaction was found to exhibit the highest average correlation with all productivity indicators (Avg $r = 0.603$; $p < 0.01$), it is safe to conclude that interventions, such as TQM, lean manufacturing, Kaizen, or 5S practices, that are designed to improve the processes in the organization will be the most likely to yield the biggest productivity gains. The remaining independent variables selected by the regression model were: the extent to which the employee has influence on the performance ratings his or her peers receive; produced product or services meet established specifications; the employee has learning and growth opportunities in the organization; and, product or service quality is measured at every step of the process. Collectively the five predictors reveal that an organization will be more likely to operate in a cost effective manner if there is a great emphasis on process improvement, quality measurement, a high performance team environment that allows peers to evaluate the performance of each other,

and plenty of learning and growth opportunities. In short, all these predictors reflect characteristics of a quality driven culture and thus once again demonstrate the strong association between quality and productivity.

The last regression model incorporated in Table 2 belongs to the productivity indicator *"inputs are received from others in a timely fashion"*. The nine predictors included in the model accounted for 65.4% of the total variance of the dependent variable. Once again, the strongest predictor in the model pertained to a quality indicator—the extent to which work output by peers is consistently delivered in a complete fashion—which in turn accounted for 43.1% of the total variance. In total, four of the nine independent variables selected by the regression model were quality management (QM) variables, which again demonstrates the strong association between productivity and quality. In particular, aside from the extent to which work outputs by peers are consistently delivered in a complete fashion, satisfaction with quality of peer work output, quick employee reaction to resolve unexpected problems, and quality measurement were the other QM variables that were found to be significant predictors of the dependent variable. Together, these QM variables reflect an organizational culture that emphasizes the key TQM components of measurement, speed, and quality work.

Table 2. *Stepwise Regression Models for Productivity Indicators*

Amount of work output by peers exceeds expectations	Cost effective production	Inputs are received from others in a timely fashion
External customer satisfaction R^2= 0.355	Internal process satisfaction R^2= 0.547	Work output by peers is consistently delivered in a complete fashion R^2= 0.431
Rewards are based on performance ΔR^2= 0.067	Have influence on performance ratings peers receive ΔR^2= 0.049	Receive praise and recognition when doing good work ΔR^2= 0.066
No turnover ΔR^2= 0.042	Produced products/services meet specifications ΔR^2= 0.032	Knowledge of expectations ΔR^2= 0.031
No change or rework needed after final products are produced ΔR^2= 0.019	Learning and growth opportunities ΔR^2 = 0.012	Satisfied with quality of peer work output ΔR^2= 0.029
Motivated to transfer newly learned skills and knowledge back to the job ΔR^2= 0.022	Product or service quality is measured at every step of the process ΔR^2= 0.014	Multiskill work environment ΔR^2= 0.027
		Receive supervisory feedback about performance ΔR^2= 0.020
		Someone at work has talked to me about my progress ΔR^2 = 0.018
		Employees react quickly to resolve unexpected problems ΔR^2 = 0.0178
		Product or service quality is measured at every step of the process ΔR^2= 0.013
R^2 = 0.504 Adjusted R^2 = 0.484 F = 25.61*** N = 131	R^2 = 0.654 Adjusted R^2 = 0.640 F = 47.55*** N = 131	R^2 = 0.654 Adjusted R^2 = 0.629 F = 25.67*** N = 131

*** $p < .001$

The remaining five variables in the regression model pertained to the extent to which the employee: a) receives praise and recognition when doing good work; b) knows of what is expected of him or her at work; c) functions in a multiskill work environment; d) receives supervisory feedback about his or her performance; and, e) has discussed his or her progress with someone in the organization. In all, these five variables together suggest that inputs from others will be received in a timely manner if performance takes place in a multiskill work environment within which

job expectations are made clear and the employee receives frequent feedback and recognition for his or her performance and progress. Special attention should be given to the importance of a multiskill work environment, since it affects performance in at least two ways. First, research has shown that a multiskill work environment facilitates job motivation, which in turn positively affects job performance (Hackman & Oldham, 1980; Pasmore, 1988). It should also be noted however, that a multiskill work environment is especially important in a manufacturing setting because it assists in alleviating absenteeism and delay related problems. It is no secret that nowadays most facilities function with a very lean workforce and thus the speed of their operations can be severely undermined by absenteeism problems. A strategy many manufacturing organizations use is to train their employees on multiple skills so that if an employee is absent a colleague can quickly step in and assume his or her role. That way any operational delays are avoided and the system is still able to conduct its operations in a timely manner. Thus, it should not be considered a surprise that this study has found the variable pertaining to a multiskill work environment to be a predictor of timely operations. In short, this result follows and validates existing manufacturing practices.

Summary and Conclusions

The results of this study provide empirical evidence of a strong link between quality and productivity. Both the correlation and regression analyses indicated positive and significant relationships between quality and productivity indicators. In particular, the correlational data in Table 1 indicated that each of the three productivity indicators exhibited an average correlation of 0.46 or higher with the eleven quality indicators included in the study. The quality indicators that were found to exhibit the highest correlations with the corresponding productivity indicators were: internal process satisfaction; work output by peers is consistently delivered in an accurate fashion; external customer satisfaction; work output by peers is consistently delivered in a complete fashion; satisfaction with quality of peer work output; and, no change or rework needed after the final products or services are produced. In terms of the regression analyses, the results in Table 2 show that the quality indicators of external customer satisfaction, internal process satisfaction, and work output by peers is consistently delivered in a complete fashion were proven to be the strongest predictors of productivity performance.

Another important conclusion that stems from the results of this study is that organizational emphasis on continual improvement of processes and quality will ultimately result in more cost-effective production, which in turn improves both productivity and profitability. A practical example that pertains to this approach is the latest achievement of Toyota Motor Corporation. Due to heavy reliance on continuous process improvement, which is a cornerstone of TQM and Lean Manufacturing principles, Toyota has been able to reduce its production costs to such an extent that it will be able to manufacture a more advanced and improved vehicle at 3-7% less than last year's model (Toyota information seminar, 2001). What is most interesting about Toyota's achievement is that other major competitors face higher costs and shrinking market shares and profits at this time.

In all, ten of nineteen variables that most strongly predicted productivity outcomes were quality management variables. Overall these ten quality management variables accounted for the majority of the variance of the corresponding productivity regression models. Based on this finding one can thus conclude that quality and productivity performance are indeed closely interrelated and one should not consider them as antithetical phenomena. Rather, investments in quality should be perceived as a means to higher customer satisfaction , greater market share, and ultimately productivity gains.

The importance of organizational variables such as performance rating of peers, performance based rewards, praise and recognition for good work, and knowledge of expectations are also seen in this study. All of these had a positive impact on productivity indicators as demonstrated in the regression analysis. These organizational variables represent classic TQM and STS social system activities, which underscore the importance of employee motivation and satisfaction for organizational success.

In terms of previous research, the results of this study are consistent with the results of the Kontoghiorghes and Bryant (2001) study. In short, both studies have found all productivity and quality indicators to be positively and significantly correlated. Further, both studies identified the quality indicators of "internal process satisfaction" and "work output by peers is consistently delivered in a complete fashion" to be the strongest predictors of "cost effective production" and "inputs are received from others in a timely fashion" respectively. Therefore, despite the fact both studies were conducted in very different work environments, one may conclude that they both ascertain the strong association between productivity and quality performance and support the assertion by quality experts such as Deming, Feigenbaum, and Imai that improvements in quality do also create improvements in productivity. Lastly, both studies identify "internal process satisfaction" and "work outputs by peers is consistently delivered in a complete fashion" as the most important quality indicators for productivity performance.

Implications for HRD practice, Limitations, and Future Research

An important implication for HRD practice is the empirical evidence this study provides that Deming's concept is valid that quality improvement also improves productivity. This means HRD practitioners must draw upon TQM and related concepts that support quality improvement in order to assist their organizations to be competitive and productive. The results and conclusions of this study are limited, however, to this sample of manufacturing facilities in the automotive parts industry. Further research is suggested to gather additional empirical evidence about the relationships between quality and productivity in other organizational settings and industries.

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Tri-Dimensional Social Support from Supervisor and Multilevel Performance in Governmental Units in Thailand

Duchduen Bhanthumnavin
National Institute of Development Administration

This study examined the relationship between supervisory social support and performance of subordinates and groups. Usable data of 355 pairs of supervisor-subordinates working in health centers in Thailand were used. The results revealed that gender was associated with support receiving in effecting subordinate performance. Dimensions of supervisory social support also predicted performance in subordinate and group levels. Self-efficacy was an important predictor of group performance. Discussion, implications for HRD in Thailand , limitations, and recommendations for future research are presented.

Key words: Supervisory Social Support, Subordinate Performance, Group Performance

Performance is a key (Swanson, 1994) for organizational survival and effectiveness. Scholars and researchers have been searching for determining factors that influence performance. Research on performance, especially in individual level has been received considerable and sustained attention in many fields of study including organizational psychology and human resource development (HRD). The findings from research studies in these fields found many possible factors that affect performance. Supervisor has been suggested as one of them.

During the last two decades, research in organizational context in Thailand and other countries has generally revealed positive consequences of support from supervisors. It was positively related to subordinate's work motivation, such as job satisfaction (e.g., Sorod & Wongwattanamongkol, 1996), commitment to work (e.g., Littrell, Billingsley, & Cross, 1994), and quality of work life (Bhathumnavin[1], Vanintananda, & et al., 1997) . Support from supervisors was also found to reduce job stress (e.g., Etzion & Westman, 1994), burnout (e.g., Eastburg, Williamson, Gorsuch, & Ridley, 1994) , health problem related to work (e.g., Blau, 1981), and health care cost (e.g., Manning, Jackson, & Fusilier, 1996). Furthermore, supervisory support was also found to enhance subordinate's transfer of training (e.g., Gregoire, Propp, & Poertner, 1998). These variables are associated with performance.

Supervisory Social Support and Performance in Group Context

The need for improving performance demands scholars and researchers to devote their efforts in searching for factors that influence the performance. Since Thailand has been affected by economic crisis, it is suggested that one of the most direct ways for improving performance of working groups in organization is to developing human resources. Such efforts should be emphasized on supervisors (Bhanthumnavin[2], 2000) which can be more beneficial to both supervisors, as well as to the subordinates. This is because supervisors are not only motivating subordinates to work, but also controlling and managing the immediate resources of the workgroup. Their behaviors, thus, can also greatly impact subordinates in both direct and indirect ways, as well as in both positive and negative directions.

Since 1981, a new approach for assessing supervisor's behaviors at work, so-called "supervisory social support" (SSS), has been introduced (House, 1981). SSS, generally consisted of at least three major dimensions: emotional support, informational support, and material support (Cohen & Wills, 1985; House, 1981), was associated to subordinate performance in many Thai studies. For example, a study employing 403 Thai teachers was conducted by Nirunthawee (1989). The part of study examined social support including from supervisors on subordinate performance. The researcher found that teachers' performance in terms of self-reported work effectiveness was positively related to social support. The similar result was found in other Thai studies using similar group of samples (e.g., Iedbuar, 1991; Koonprasert, 1992), and in nurese (Phosrithong, 1993), executive officers (Sorod & Wongwattanamongkol, 1996), and police officers (Pinpradit, in press).

The results from Nirunthawee's study, moreover, revealed the positive relationship between social support including from supervisors and performance in terms of supervisory rating. Other Thai studies also found the similar result (e.g., Na Wanjun, 1993). However, it should be pointed out that these above studies assessed many sources of social support (supervisors, coworkers, family and friends) at the same time in one measure. Thus, SSS was not fully studied in terms of its multi-dimensions in different work situations.

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Furthermore, there is little evidence of the relationship of SSS and group performance. The assumption being made in Thailand is that SSS should lead to performance in both subordinate and group levels. The empirical results in this area are much in need.

Other Factors that Affect Performance in Group Context

Besides SSS, there are other factors affecting performance in workgroups. Perceived organizational support (POS) was suggested to impact on subordinate performance through subordinate's commitment to work (e.g., Eisenberger, Fasolo, & Davis-LaMastro, 1990), prosocial behavior in terms of in-role and extra-role behaviors (e.g., Lee, 1995; Settoon, Bennett, & Liden, 1996), and organizational citizenship behavior (e.g., Lynch, Eisenberger, & Armeli, 1999). Many researchers would argue that subordinate's psychological characteristics which affect work motivation can also play important role on their performance, such as self-efficacy (Bandura, 1986; 2000), and work overload (e.g., Chiles, 1982). Self-efficacy and work overload were also found together with SSS or social support in having interaction effect on individual performance (e.g., Ballentine & Nunns, 1998; Glaser, Tatum, Nebeker, Sorenson, & Aiello, 1999). Studies on the relationship of these variables were rarely found in Thailand. Thus, there is the need to examine their effects on performance of subordinates and groups.

Purpose of The Study

A key problem in HRD is to determine factors that influence the performance of subordinates and groups. One strong possible factor is SSS. The main purpose of this study is to investigate the relationship between SSS and performance of subordinates and groups. The second purpose is to examine the effect of other potential factors on the performance in these two levels. Furthermore, this study compared and contrasted these effects in different types of subordinates. There were three research hypotheses in this study.

Hypothesis 1: Subordinates reporting high degree of emotional support, informational support, and material support will get higher supervisory rating than those reporting low degree on all of these three-support dimensions. This result will be found in female subordinates rather than in male subordinates.

Hypothesis 2: Emotional support, or informational support, or material support, will be positively related to work effectiveness, or supervisory rating, or group performance.

Hypothesis 3: Self-efficacy will be associated with group performance.

Methodology

Sample

The respondents were 972 matched pairs of supervisor-subordinates working in health centers in six provinces in Thailand. Without follow up, 542 supervisors and 517 subordinates returned usable questionnaires which yielded response rate of 56% and 53%, respectively. Of these numbers, data from only 355 pairs were used. The subordinate participants consisted of 150 males, and 204 females with one unidentified on gender. Their age ranged between 18-58 with the average of 30.48 years old (SD = 5.93). The supervisor participants were 148 males and 203 females with four unidentified on gender.

Measure

All measures were written in Thai language. Most of them were summated rating measures, with 6-point Likert scale ranging from "very true" to "not at all true". The details of each measure are as below.

Supervisory social support (SSS). This measure was constructed by the researcher based on literature (e.g., House, 1981) and existing measures (e.g., Niruthawee, 1989). This measure assessed perception of subordinate on supervisor's behaviors in three dimensions: emotional support (e.g., showing respect and appreciation), informational support (e.g., giving advice or guidance related to work), and material (e.g., providing needed resources, services, and goods). It consisted of 10 items for each dimension with the total of 30 items. Reliability in terms of alpha coefficient show satisfactory results in emotional dimension (α = .9413), informational dimension (α = .9168), material dimension (α = .9168), and total measure (α = .9702).

Perceived organizational support (POS). This measure was constructed by the researcher based on Eisenberger, Huntington, Hutchinson, & Sowa, (1986)'s concept. The measure consisted of 15 items assessing subordinate's perception on supports from organization in terms of being valued, being cared about, and working in flexible environment. Alpha coefficient was .8670.

Self-efficacy. The researcher constructed the measure based on Bandura's (1982; 1986; 2000) concept. It is consisted of 15 items assessing the belief of subordinate that he or she has capability to perform a task. Alpha coefficient was .8117.

Work overload. Base on literature and interview results, the researcher constructed this measure, consisting of 10 items. The items assessed work overload from view point of subordinate in terms of being in the work conditions that require beyond his or her normal role. Alpha coefficient was .8487.

Work effectiveness. The researcher constructed this measure based on literature and interview results. This measure consisted of 10 items. The subordinates were asked how well they can perform the jobs in terms of quality, quantity, and time. Alpha coefficient was .7212.

Supervisory rating. Supervisors were asked to rate a subordinates regarding his or her performance in terms of quality, quantity, and time within the past six months. Constructed by the researcher, it consisted of 15 items. Alpha coefficient was .9206.

Group performance. Group performance, related to organizational missions, was rated by supervisors in terms of quality, quantity, and time. This measure, total of 15 items, was constructed by the researcher with alpha coefficient of .8660.

Location of workplace. Subordinates were asked to identify the distance between their health center and provincial capital (urban area) in terms of kilometers.

Descriptive data and correlation among measures are displayed in Table 1.

Table 1. *Descriptive data and correlations among variables in the study*

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	-	-	-											
2. Age	30.48	5.93	.25[b]	-										
3. Ed	14.89	1.08	.03	-.14[b]	-									
4. KM	30.68	30.93	-.08	-.19[b]	-.02	-								
5. POS	49.01	11.65	.03	-.05	-.20[b]	.05	-							
6. SE	66.37	8.51	-.06	-.05	.02	.02	.16[b]	-						
7. WO	40.59	5.72	.01	.03	.15[b]	.05	-.37[b]	-.04	-					
8. Emo	41.90	11.13	-.12[a]	-.12[a]	-.11[a]	.06	.30[b]	.14[a]	-.21[b]	-				
9. Info	41.12	10.11	-.08	-.10	-.18[b]	.06	.31[b]	.15[b]	-.21[b]	.89[b]	-			
10. Mat	41.75	10.34	-.08	-.07	-.14[b]	.02	.36[b]	.14[b]	-.24[b]	.80[b]	.84[b]	-		
11. WE	42.70	5.53	.13[a]	.01	.09	.06	.11[a]	.55[b]	-.04	-.07	-.03	.02	-	
12. SR	62.17	12.23	.04	-.13[a]	.06	.11[a]	.03	.04	.05	.24[b]	.18[b]	.22[b]	.05	-
13. GP	72.89	7.77	.04	.07	.15[b]	.04	-.02	.18[b]	-.08	.08	.09	.13[a]	.12[a]	.24[b]

[a] $p < .05$; [b] $p < .01$ (two-tailed) Note: Ed (Education) ,KM (Location of workplace), POS (Perceived organizational support), SE(Self-efficacy), WO (Work overload), Emo (Emotional support), Info (Informational support), Mat (Material support), WE (Work effectiveness), SR (Supervisory rating), and GP (Group performance).

Results

Hypothesis 1 was tested by 3-way ANOVA to find the interaction effect of emotional support, informational support, and material support on supervisory rating in female subordinates and male subordinates. As expected, this interaction was found only in female subordinates (see Table 2). Results from post hoc test in terms of Scheffe indicated that female subordinates reporting high degree of all three support dimensions got higher supervisory rating than those reporting low degree of all three dimensions. Thus, the hypothesis 1 was supported.

Furthermore, the results in male subordinates revealed only a main effect of informational support. The result surprisingly indicated that male subordinates reporting low informational support ($\bar{x}$ = 66.29) were rated by their

Table 2. *Analysis of variance for supervisory rating in female subordinates and male subordinates*

Source	Supervisory Rating					
	Female subordinates			Male subordinates		
	df	MSE	F	df	MSE	F
Emotional support (A)	1	.40	.003	1	467.16	3.58
Informational support (B)	1	114.06	.76	1	784.33	6.00 [a]
Material support (C)	1	6.91	.05	1	115.06	0.88
A x B	1	6.87	.05	1	277.18	2.12
Ax C	1	.83	.006	1	222.18	1.70
B x C	1	4.10	.03	1	5.81	0.45
A x B x C	1	1087.40	7.28 [b]	1	4.09	0.31
Error	186	149.42		138	130.68	
Total	194			146		

[a] $p < .05$, [b] $p < .01$

supervisor as more effective than those reporting high informational support ($\bar{x}$ = 58.49).

In order to test hypothesis 2 and 3 concerning the contribution of variables, multiple regressions were performed on work effectiveness, supervisory rating, and group performance. Data were analyzed in total sample and in four subgroups. In the first step, subordinate's personal background variables were entered in the equations. Results from Table 3-5 indicated that gender made a significant contribution only to work effectiveness in total sample and in young subordinates. Age was found to be a significant predictor of supervisory rating in total sample and in female subordinates, as well as, of group performance in total sample. Education did also make a significant contribution only to group performance, especially in old subordinates.

Subordinate's psychological characteristics and situational factors were entered in the second step in all equations. In addition, work effectiveness and supervisory rating were added in this step only for the equation of group performance. It was found that self-efficacy made a significant contribution to work effectiveness in all groups, as well as to group performance in total sample and especially in female subordinates and in young subordinates. The results suggested that high self-efficacy subordinates rated themselves as more effective and were in centers with higher performance than relatively low self-efficacy ones. POS was found to be a significant predictor of work effectiveness, especially in old subordinates. Old subordinates with high POS reported higher work effectiveness that those with relatively low POS. Location of workplace also made a significant contribution to work effectiveness and group performance in male subordinates, and to supervisory rating in old subordinates. The results suggested that these subordinates who reported that their centers were not located near urban area (provincial capital) also reported higher work effectiveness, got higher supervisory rating, and/or their groups were more effective than their counterparts.

After partialing out the effects of subordinate's personal background, psychological characteristics, and situational factors, two of the three dimensions of SSS were significantly related to performance. First, emotional support made a significant contribution only to subordinates performance in terms of work effectiveness and supervisory rating, The results of both types of performance were found in total sample, female subordinates and young subordinates (see Table 3 and 4). The findings suggested that subordinates reporting higher emotional support got higher supervisory rating than those with relatively low emotional support. On the contrary, high emotional support subordinates, instead, rated themselves as less effective than the relatively less emotional support ones.

Secondly, material support was also found to make a great contribution to performance in both subordinate and group levels (see Table 3-5). The results suggested that subordinates reporting higher material support also reported higher work effectiveness (total sample, female subordinates, and young subordinates), got higher supervisory rating (total sample), and were in the centers with higher performance (young subordinates only).

Thus, the results on work effectiveness and supervisory rating in total sample and two subgroups with the result on group performance in young subordinates supported the hypothesis 2. The hypothesis 3 was supported from the results on group performance in total sample, and two subgroups.

Table 3. *Multiple Regression for Work Effectiveness in Total Sample and Four Subgroups*

Predictors	Work Effectiveness														
	Male Subordinates			Male Subordinates			Female Subordinates			Young Subordinates			Old Subordinates		
	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2
Step 1															
Ed	.10			.10			.10			.03			.18 [a]		
Age	-.05			-.02			-.06								
Gender	.15 [a]		.03 [a]			.01			.01	.16 [a]		.03	.12		.05 [a]
Step 2															
KM	.07			.19 [a]			-.01			.07			.08		
POS	.06			.12			.03			-.00			.16		
SE	.55 [d]			.50 [d]			.60 [d]			.56 [d]			.52 [d]		
WO	.004	.32 [d]	.35 [d]	.02	.31 [d]	.32 [d]	.01	.36 [d]	.37 [d]	.06	.32 [d]	.34 [d]	-.06	.34 [d]	.38 [d]
Step 3															
Emo	-.26 [a]			-.16			-.38 [b]			-.46 [c]			-.08		
Info	-.03			-.04			.02			.14			-.17		
Mat	.19 [a]	.03 [b]	.38 [d]	.07	.02	.34 [d]	.31 [b]	.04 [b]	.41 [d]	.31 [b]	.06 [c]	.39 [d]	.04	.04 [a]	.42 [d]

[a] $p < .05$, [b] $p < .01$, [c] $p < .001$, [d] $p < .000$ Note: Ed (Education), KM (Location of workplace), POS (Perceived organizational support), SE (Self-efficacy), WO (Work overload), Emo (Emotional support), Info (informational support), and Mat (Material support).

Table 4. *Multiple Regression for Supervisory Rating in Total Sample and Four Subgroups*

Predictors	Supervisory Rating														
	Total Sample			Male Subordinates			Female Subordinates			Young Subordinates			Old Subordinates		
	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2
Step 1															
Ed	.08			.07			.08			.06			.10		
Age	-.16 [b]			-.08			-.19 [b]								
Gender	.05		.03 [a]			.01			.04 [a]	.07		.01	-.03		.01
Step 2															
KM	.10			.11			.10			.05			.23 [b]		
POS	.02			-.10			.09			.04			.05		
SE	.01			-.01			.04			.04			-.02		
WO	.05	.01	.04	.05	.03	.04	.05	.02	.06	.14	.02	.03	-.02	.06	.07
Step 3															
Emo	.31 [a]			.11			.43 [a]			.33 [a]			.28		
Info	-.27			-.16			-.29			-.26			-.27		
Mat	.20 [a]	.06 [d]	.10 [d]	.27	.05	.09	.14	.08 [b]	.14 [c]	.18	.06 [c]	.09 [a]	.26	.06 [a]	.13 [a]

[a] $p < .05$, [b] $p < .01$, [c] $p < .001$, [d] $p < .000$ Note: Ed (Education), KM (Location of workplace), POS (Perceived organizational support), SE (Self-efficacy), WO (Work overload), Emo (Emotional support), Info (informational support), and Mat (Material support).

Discussion

This study examined the relationship between three dimensions of SSS and performance of subordinates and groups. The current data collaborated earlier findings (e.g., Vaux, 1985) concerning the association between gender and support receiving. The results revealed that female subordinates perceived more support than male subordinates. Furthermore, among female subordinates, the ones with high degree of all three-support dimensions got higher supervisory rating than those reporting low degree of all three-support dimensions. Regarding male subordinates, it was unexpectedly found that male subordinates reporting high informational support got lower supervisory rating than those reporting low informational support. Male subordinates may not need much informational support to improve their performance.

Table 5. *Multiple Regression for Group Performance in Total Sample and Four Subgroups*

Predictors	Group Performance														
	Total Sample			Male Subordinates			Female Subordinates			Young Subordinates			Old Subordinates		
	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2	β	ΔR^2	Total R^2
Step 1															
Ed	.07			.15			.14			.09			.19 *		
Age	.07 [b]			.14			.02								
Gender	-.01 *		.03 *			.06 *			.02	.03		.01	-.05		.04
Step 2															
KM	.06			.20 *			-.05			.11			-.01		
POS	-.07			-.17			.03			-.07			-.10		
SE	.18 [b]			.17			.22 *			.20 *			.16		
WO	-.11			-.07			-.11			-.08			-.14		
WE	.01			-.04			.03			-.08			.12		
SR	.21 [d]	.09 [d]	.12 [d]	.26 [b]	.15 [c]	.20 [d]	.15 *	.10 [b]	.12 [b]	.24 [c]	.10 [b]	.11 [b]	.18 *	.10 *	.14 *
Step 3															
Emo	-.22			-.11			-.28			-.33			-.15		
Info	.11			.03			.18			.23			-.03		
Mat	.20	.02	.14 [d]	.11	.01	.21 [b]	.26	.04	.16 [b]	.26 *	.05 *	.16 [b]	.21	.01	.15 *

[a] $p < .05$, [b] $p < .01$, [c] $p < .001$, [d] $p < .000$ Note: Ed (Education), KM (Location of workplace), POS (Perceived organizational support), SE (Self-efficacy), WO (Work overload), WE (Work effectiveness), SR (Supervisory rating), Emo (Emotional support), Info (Informational support), and Mat (Material support)

The major contribution of the present study involves the evidences that dimensions of SSS predicted performance of subordinates and groups. In more details, emotional support was one of significant predictors of subordinate performance in terms of work effectiveness and supervisory rating. These results were found in total sample, and especially in female subordinates and in young subordinates. However, the direction of magnitude of emotional support in predicting these two types of performance was in the opposite. It was surprisingly found the negative direction in predicting work effectiveness. Further analyses revealed that this negative direction was found when subordinates reported high work overload, or high self-efficacy. Previous studies also suggested that receiving support can be hurt rather than help (Jung, 1987; Rook, 1984) when recipients are in high work overload because of increasing stress (e.g., Kaufman & Beehr, 1986). Supervisory support was also found to inhibit performance of subordinates with high self-efficacy in a recent study (Ballentine & Nunns, 1998)

Material support was also found to make a great contribution to performance in both subordinate and group levels. The results suggested that subordinates with high material support reported higher work effectiveness, got higher supervisory rating and were in the centers with higher performance than those with low material support. These results were found especially in young subordinates. Young subordinates who were new to their works might have perceived the importance of material or equipment related to their works, rather than old subordinates whose works became routinely. Thus, perceiving high material support increased their individual as well as their group performances.

Information support was not found to make contribution to performance in this study. This could be because supervisors in health centers may not be the important source of information. As directly assigned from the Ministry of Public Health or administration in provincal level to be trained by the job title, supervisors sent their subordinates to participate in meetings and training related that works. Thus, the subordinates received information directly rather than via their supervisors.

The relationship between self-efficacy and group performance is rarely studied. Many researchers suggested that, instead of self-efficacy, collective efficacy is more likely to be associated with group performance (e.g., Seijts, Latham, & Whyte, 2000). It is evident in this study that self-efficacy was one of the important predictors of group performance in total sample and in other two subgroups. The possible explanation is that health center is generally a very small work unit, consisting of one supervisor and 2-4 subordinates. Thus, in such a small group, the effect of employee's self-efficacy could be found in group performance.

Implications for HRD in Thailand

Training should be given to Thai supervisors in health centers to provide appropriate amount and types of support in terms of emotional support, informational support, and material support in order to produce positive impact to performance in both levels in different types of subordinates. Supervisors should also be taught to identify and train to provide support to subordinates with varying levels of work overload and self-efficacy. Regarding the subordinates in health centers, training to improve their self-efficacy is recommended in general, and especially for female subordinates and young subordinates. Supervisors can also enhance these subordinates' self-efficacy in many ways, such as, being a good exemplar, and verbal persuasiveness.

Limitations

The first limitation of this study is that it is nonexperimental. It should be caution to make statements of causality and generalization based on the results of this study. Furthermore, self-report data were used. It should be pointed out that this method might have the effect of artificially inflating relationship among variables. The researcher was also aware of the strong correlation among the three dimensions of perceived supervisory social support. However, the high correlation may not be avoided because these dimensions are suggested to be interrelated in nature (Fenlason & Beehr, 1994; Sarason, Sarason, & Pierce, 1990). The final limitation is that this study employed cross-sectional study.

Recommendations for future study

This study should be replicated in both private and government organizations in Thailand. Furthermore, experimental studies in creating and testing a social support training module for Thai supervisors should be done. Longitudinal studies in this topic are encouraged to assess supervisory social support in both providing and receiving overtime. Such studies should also take psychological characteristics and situational factors into account in order to get complete picture of the phenomenon. Condition seeking approach is also recommended by analyzing data in subgroups. This is because different subordinates or groups of subordinates may seek, perceive, and interpret social support from supervisors in different ways.

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Continuous Improvement through TQM – A Case Study in Rhetoric

John Stuart Walton
Prabhjot Kaur Basra
London Guildhall University

This paper discusses the relationship between TQM, organisational wide change initiatives and continuous improvement through a case study analysis of eight large UK organisations over a fifteen-year period. It develops and tests out an explanatory conceptual framework to inform the analysis. It explores the use and significance of rhetorical devices in the case study organisations to persuade people of the need to change continuously.

Keywords: Continuous Improvement, Organisational Change, TQM

This paper originates from a case study review of Total Quality Programmes (TQPs) – defined as a suite of organisation wide change initiatives with a continuous improvement orientation - within seven large privatised (plus a candidate for privatisation) organisations in the UK between the period 1983-1997 (Basra 2001). Four of them operate in the service sector, four are manufacturing or production oriented. The smallest organisation employed between 7,500 and 8,000 staff, the largest between 125,000 and 240,000 staff over the period covered by the study. All of them experienced competition without governmental protection and seven of them were subjected to major downsizing. Nevertheless each of them meet the requirement of survival that as Hackman and Wageman (1995 p310) point out is the primary goal of TQM from the perspective of the movement's founders. For the purposes of the research a privatised organisation is defined as having involved a transfer from government ownership to private ownership since 1979, with many of the general public holding shares. An initial survey established provisional information on change in staff attitudes and behaviours over the period following privatisation. For example 71% said that their working practices and organisation understanding had been greatly enhanced, 61% had become actively involved in improving the quality of their work, 95% said they needed to fit in with the way their customers worked. Following this initial survey, for each of the case study organisations an audit trail was conducted, by means of company documentation and other sources, on quality in general and TQPs in particular. This resulted in a chronological account of the evolution of TQPs in each organisation from 1983-1997. The initial survey and the chronological accounts surfaced a number of common themes and approaches associated with TQPs as well as a mean average of 25 TQ related programmes per organisation with over 200 different names being used. Key themes and key words across the programmes were isolated and looked at in turn to identify origins of, inspiration behind and objectives of TQPs. The concept of change through continuous improvement, or associated terminology, was common across each case study organisation. Of particular interest was the identification of persuasive terminology used to convey the quality message and convince people of the need to change.

Problem Statement

Walton (1999 p355) argued that 'it is no longer appropriate to treat HRD as a synonym for Training and Development.... Perhaps more than anything what epitomises this transformation has been the development starting in the 1980s of Total Quality management (TQM) initiatives in large organisations, often linked to cultural change programmes'. However the relationship between TQM and corporate change programmes maintains a problematic status in the literature. Hackman and Wageman (op cit.) comment that virtually every intervention ever tried by an organisation development consultant has somewhere or other been attributed to TQM. Continuous improvement is a term that is central to TQM thinking and by definition implies ongoing change. Harris (1995), accepts that 'continuous improvement efforts and TQM are often linked' but recognises that the connection between the two efforts is not clear. 'Efforts to bring a continuous improvement philosophy to organisations have been labelled both subsets of TQM programmes and as encompassing TQM' (Harris ibid. p 97). This paper seeks to provide a conceptual framework to clarify the relationship between TQM and macro corporate change initiatives, with particular reference to continuous improvement.

There have been a number of self-conscious attempts to use rhetorical imagery in populist literature dealing with organisational change. Naisbitt and Aburdene (1985.) state (p3) that 'the aim of this book is not just to inform but to inspire'. Peters and Waterman move from 'In Search of Excellence' to a 'Passion for Excellence' in their

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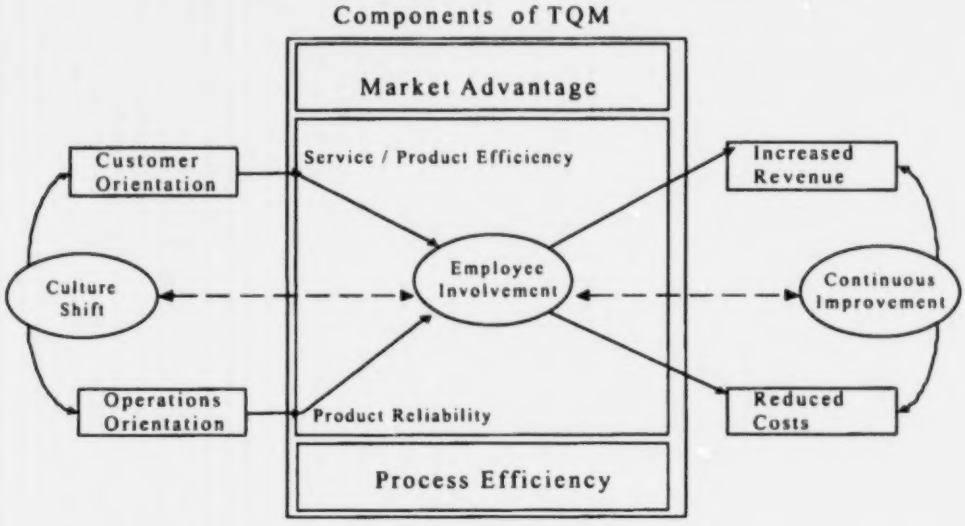
well known publications of the 1980s. Hackman and Wageman (op cit.) comment that 'the rhetoric of TQM is engaging, attractive and consistent with....the managerial *Zeitgeist* in the United States' (p 338). Pithy phrases and slogans from the quality gurus include: 'drive out fear', 'work smarter not harder' and 'it will not suffice to have customers that are merely satisfied' (Deming 1986); 'fitness for use' and 'managerial breakthrough' (Juran 1988); 'it is always cheaper to do the job right first time' and 'zero defects' (Crosby 1979). Rust et al (2000) pursue the implications of 'delighting the customer', which they note has became a term used in 'executive exhortations' in the marketing trade press since about 1990. Hackman and Wageman (op cit. p338) conclude that 'rhetoric is winning out over substance', restricting their observations to the US. In focusing on the actual terminology used over a period of fifteen years to propagate the message of 'continuous improvement', this paper explores this claim and its significance for change theory in a UK context.

Theoretical Framework

The concepts of quality and TQM have been subjected to significant academic scrutiny in recent years. Reeves and Bednar (1994), building on Garvin (1988), identify four separate roots of quality definitions – quality is excellence, quality is value, quality is conformance to specifications, quality is meeting and/or exceeding customer's expectations. A number of writers have tried to establish common content features of TQM programmes (Chang (1993, Waldman (1994) in which change and continuous improvement is emphasised. Reed et al (1996) have developed a framework for analysing the relationship between firm orientation and TQM content from a contingency perspective. Their model indicates that some organisations have a greater customer orientation focusing upon market advantage and increased revenue, whereas others have more of an operations orientation focusing upon process efficiency and reduced costs. They restrict it to the manufacturing sector but suggest that it could apply to firms in service industries. This paper builds on and extends the Reed et al framework, incorporating culture shift, employee involvement and continuous improvement, three factors mentioned by both Chang and Waldman above and figuring in the case study organisations. (Figure 1 below)



Research Questions

The first question asks about the relationship between TQM and macro culture change through investigating the concept of continuous improvement. The second question relates to identifying any differences in the terminology used to refer to continuous improvement between the case study organisations and, if so, could these be related to factors such as an operations orientation v a customer orientation? The third question addresses the issue of why should people accept exhortations to continuously improve and the nature of the persuasive terminology used? Has it changed over time and if so how? Is there any evidence in the UK that 'rhetoric is winning out over substance'?

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Methodology

A case study approach was adopted, described by Bogdan and Biklen (1992) as 'a detailed examination of one setting, or one single subject, or one single depository of documents, or one particular event'. In this instance it was one particular subject across a range of organisations. The study involves a retrospective analysis of phenomena occurring over the period 1983-1997 but goes beyond mere 'historical research'. Yin (1994 p8) argues that 'the case study relies on many of the same techniques as a history, but it adds two sources of evidence not usually covered in the historian's repertoire: direct observation and systematic interviewing. Again, although case studies and histories can overlap, the case study's unique strength is its ability to deal with a full variety of evidence – documents, artefacts, interviews and observations – beyond what might be available in the conventional historical study.' Archival research to establish key initiatives and supporting terminology over a given period was undertaken. Interviews were conducted with selected managers across each of the case study organisations, chosen because of their organisational knowledge, enabling rich sources of data to be obtained based on their experience, opinions, aspirations and feelings. Although its detailed analysis does not fall within the ambit of this paper, a questionnaire was circulated at the outset of the research to a cross section of 200 employees from 20 privatised organisations. This was designed to test out a series of propositions including that TQPs have been used across the privatised sector as a key tool towards achieving continuous improvement; and that communication and training are key to the introduction of any TQP.

This paper incorporates a rhetorical analysis of organisational texts to analyse key stylistic and other devices used in the case study organisations to try to convince people of the need to change. Summarising the excellent analysis provided by Leach (2000) *rhetorical analysis* can be defined as the analysis of persuasion attempts in oral performances or written texts. Politicians, for example, perform 'acts of persuasion' in their speeches. Trainers perform 'acts of persuasion' in their presentations. Top managers perform 'acts of persuasion' in their communications to staff and external stakeholders. This rhetoric is directed at a discrete audience that is expected to give some sign that it is persuaded by the arguments presented, classically through a change in behaviour or opinion. There are three persuasive genres or *stases:* forensic, epideictic and deliberative (Gross 1990, Fahnestock 1986). Forensic theory is the rhetoric of the law courts. Epideictic rhetoric is centred on contemporary issues, and on whether a certain individual deserves praise, blame or censure as in funeral orations and award ceremonies. Deliberative rhetoric is found in the arena of policy, where debate centres on outlining and eliciting commitment to courses of future action. The mode of persuasion is frequently speculative. The texts used in the case study organisations to propagate the change message can be described as *deliberative.* They included company annual reports, newsletters, magazines and videos.

The next stage of analysis draws upon the five 'canons' of rhetoric used by Cicero in classical Roman times. These canons are:- *Invention* - how arguments are 'invented' to achieve particular purposes through 'ethos' – the credibility of the author or speaker; 'pathos' – the appeal to emotion, and 'logos' – how logical arguments are used to convince us of their validity; *Disposition* - by what structural logic does the text or speech support its ultimate aims; *Style* - the relationship between the form of the discourse and the content. Style includes rhetorical tropes or 'figures of speech' such as metaphor and analogy; *Memory* - how a text or speech stays in the memory; how particular discourses call upon cultural memories shared by authors and their audiences, (Lipsitz 1990); *Delivery* - the relationship between the dissemination of a work and its content.

The Emergence of TQM

Most authorities on TQM locate the concept in the work of the so-called quality gurus, namely Feigenbaum, Crosby, Juran, Deming and Ishikawa and there have been a number of studies comparing some or all of their perspectives (eg Oakland 1989, Harris op cit.). Harris in tracing the evolution of TQM identifies the emergence of a customer focus and the development of traditional quality control techniques for use outside the production area where they originated, which made TQM applicable to other sectors such as service industries. He contends that as the need for a focus on the customer and the important role of employee involvement in successful quality management became clear, the term TQM began to replace the term Total Quality Control (TQC), first coined by Feigenbaum (1957) in the 1950s. TQC in turn was an attempt to move quality concerns from a narrow focus on statistical control within a production department to a wider, more systems thinking arena, albeit still from a manufacturing perspective. A number of the case study organisations specifically used the term TQM at some stage of their TQP life cycle. The first TQM programme in BT was launched in 1986 as an umbrella term to cover a range of Quality Improvement

initiatives. There was a strong customer orientation – quality was defined in 1987 as 'meeting the customer's (agreed) requirements at lowest cost...first time every time'.

Continuous Improvement in the Literature

It is unclear when the term 'continuous improvement' was first used. The concept underlies the Deming management method as defined by the Delphi panel in the 1950s (Anderson et. al (1994)). Deming (1986), in his '14 points for management to abide by when considering quality', referred to 'improving constantly and forever the system of production and service' to improve quality and productivity and to decrease costs. Juran first uses the term in 1988, in the 4th edition of his Quality control Handbook. Reed et al (op cit.) analyse 'continuous improvement' in terms of process improvement of operations in manufacturing. They argue that in TQM terms, the concept of continuous (process) improvement is considered as an efficiency tool, with strong affinities to *Kaizen* – 'the never ending attention to detail that reduces the effort and time that it takes to conduct operations' (Schmidt and Finnigan 1992). They recognise, however, a trend to move away from the earlier 'continuous process improvement orientation to the broader 'continuous improvement with a focus on the customer and market. Hunt (1993: 46) states that 'continuous improvement depends on both innovative and small incremental changes'. He quotes a report emanating from the Logistics Management Institute which states 'that no process, product or service ever attains perfection and that neither the customer's expectations nor the quality of service remains static.' Kiernan (1993) argues that in the 21st century, companies must embrace continuous improvement and change if they are to adapt to the competitive exigencies of speed, global responsiveness; the need to innovate constantly or perish. During the 1990s this came to be seen as both a commitment and a process. As stated by Gallagher and Smith (1997): 'the commitment to quality is initiated with a statement of dedication to a shared mission and vision and the empowerment of everyone to incrementally move towards the vision. The process of improvement occurs through the initiation of small, short-term projects and tasks that collectively are driven by the achievement of the long term vision and mission'.

Garvin (1994) comments that at the time of writing 'continuous improvement programmes are sprouting up all over as organisations strive to better themselves and gain an edge'. Whatever the themes underpinning such programmes, 'continuous improvement requires a commitment to learning' (p19). He proceeds to make a connection with the concept of a 'learning organisation'. A number of writers refer to 'continuous learning' as a feature of TQM, or as a feature of the 'learning organisation', which some see as a development from TQM. Pedler et al (1991) define a learning company as 'an organisation that facilitates the learning of its members and continuously transforms itself.' Walton (op cit.) challenges this notion of 'continuous transformation, contending that it is counter-intuitive to the notion of learning. 'Without any stability there is no sense of continuity or order, no time to enjoy and build on what has been achieved' (p383).

Continuous improvement is featured within the assessment criteria of some prestigious quality awards. It is specifically referred to in the European Quality Award (Business Excellence) model launched in 1992, under two headings. The first is *'People Management'* -'how the company releases the full potential of its people to improve its business continuously' - and the second is *'Processes'* – 'how processes are identified, reviewed and, if necessary, revised to ensure continuous improvements of the company's business'.

Results and Findings

Continuous Improvement in the Case Study Organisations

There are references to continuous improvement in each of the case study organisations, often in association with other TQ concepts, as can be seen in the following extracts. *BT (Service Sector):* "We will constantly improve the quality and capability of our products and services" (The Leadership Guide 1987). "We are committed to continuous improvement" –part of revised BT values which also included 'we put our customers first; we are professional; we respect each other; we work as one team' (1991). "Continuously improving levels of service" – one of aims of BT Customers First strategy which stated by way of introduction 'we are committed to providing our customers with a helpful, polite and world-class service' (1992). *BAe (Manufacturing Sector):* "To maintain exceptional customer satisfaction through continuous improvement whilst maintaining national and international Quality Systems Standards Approvals" –from Quality Strategy (1995). *Rover (Manufacturing Sector):* "TQ requires continuous improvements in everything we do, using and investing our resources effectively at all times to minimise total costs" (1985). 'Continuous improvement, total flexibility....and participation in quality action teams' - measures included within the New Deal programme (1992). "What has really changed at Rover as a result of our total quality programme is the company culture - the commitment to continuous improvement both as individuals

and in the contribution we make to the success of the business" (Rover Group CEO – 1994). *BA (Service Sector):* 'Maintaining constantly improving targets as a good employer as well as manifesting concerns for social and community opportunities and environmental standards wherever the company operates' (Vision statement 1986). *BAA (Service Sector):* "Achieving continuous improvements in the cost and quality of all process and services" (1992). "CI is all about customer service. CI needs staff involvement at every level. CI is a process of providing improvement, continuously" (1992). "Our continuous improvement philosophy seeks to enhance customer satisfaction cost-effectively and increase profits by meeting the evolving needs of our airline customers and their passengers" (1993). "Never ignore a problem - always look for a way of overcoming that problem. The best person to improve the company is YOU - because you are at the sharp end. You know what will work and you know what won't work so never be afraid to voice your opinion or your views. By working together and adopting CI as a daily philosophy we can ensure that BAA offers its customers the best service possible. CI - Making a Better Future today and every day" (BAA CI literature 1991). *BP (Production Sector):* Continuous improvement listed as one purpose of the initiative called 'Benchmarking Process'. Others listed; achieve 'Best in Class' cost structure; ensure cost competitiveness to attract investment; provide competitive advantage for each product: i.e. customer satisfaction and quality, reliability, delivery and cost; and survival (1992). *BS (Manufacturing Sector)*: Our aim is to provide all customers, internal and external, with quality products and services and to strive for continuous improvement –(from Teeside Works Mission Statement 1992*). RM (Service Sector)*: Customer driven strategy that moves RM to an "environment where a steady and continuous improvement of every thing RM do is a way of life" (1988). 'Continuous Improvement' - Key principle of Customer First programme- (1993- 1995). " We in RM have made great strides to quality improvement. We have set tough targets but these are necessary if we are to maintain and improve our position in the market place ... Quality improvement is a continuing path and we cannot afford to rest. Our reputation depends on everybody making a contribution and becoming involved" (Assistant MD 1994)

A textual analysis of the above continuous improvement statements identified other associated concepts/themes. The main themes were Customers (including service) - 6 companies made connections (4 from the service sector, 2 from manufacturing/ production). Employee involvement – 4 (3,1). Costs – 4 (1, 3). Business results – 3 (0, 3). Services – 3 (2, 1). Products – 2 (1, 1). Processes – 2(1, 1). Targets – 2 (2, 0). Kite-mark (Award) – 1 (0, 1). To be the best – 2 (2, 0). Culture – 1 (0, 1). Survival - 1 (0, 1). There was some indication from this that the manufacturing/production organisations were more interested in costs and business results than those operating in the service sector. But further analysis of other texts showed how all of the above themes interconnected.

Customer Orientation. The case study organisations show evidence of a customer orientation through trying to achieve continuous improvement in the area of customer satisfaction. The BAA quotations above specifically connect the two themes. There is a change in emphasis over the period from understanding customer requirements to meeting customer requirements to exceeding customer require ments to providing extraordinary customer service to 'delighting and thrilling' customers. Recurrent keywords and phrases (with dates when first used where available) associated with programmes and activities include: Customer care (BA 1984, BT 1985); understand our customers (Rover 1986, BT 1987, RM 1988, BS 1992); customer satisfaction (BAe 1990, BP 1992), enhance customer satisfaction (BA 1993) exceptional customer satisfaction (BAe 1994); extraordinary customer satisfaction (Rover 1989): meeting customer requirements ((Rover 1986, BT 1987, BAA 1993, BAe 1994); exceeding customer expectations (RM 1995); customer focus (BA 1983, Rover 1989, BT 1988, RM 1990, BAA 1993, BS 1994); highest levels of customer service (BA 1987); excellence in customer service (BT 1990, BAe 1996); putting customers first (BA 1986, RM 1988, BT 1990, BS 1990); delighting customers (BAe 1996, BS 1996) ; DELIGHT and THRILL customers (BT 1992).);); inspire lifetime (customer) relationships (Rover 1995)

Employee Involvement / Participation / Teamwork. They were a strong feature across the organisations often associated with continuous improvement. For example: *BT*: "We will make sure we understand and meet the requirements of our colleagues, to enable us to operate as an effective team" (1987) ; *Bae:* "We are dedicated to working together, and with our partners" (1995*); Rover*: "continuous improvement; total flexibility ... and participation in quality action teams "*; BA:* 'It All Depends On Me' – (Programme for ground staff 1987) 'Everyone makes a difference' (Marshall, CEO 1989); *BAA*: "CI needs staff involvement at every level" (1992); *BP* : "Openness, care, teamwork, empowerment and trust" (1990). *BS*: "I believe strongly that the growth of workforce participation in team activities is vital to maintain our progress towards Total Quality aimed at delighting the customer " [Vicars, MD Tinplate BS 1996]; *RM*: Employee participation via Continuous Improvement -1991-94. Our reputation depends on everyone making a contribution and becoming involved (1994).

To be the Best. Underpinning the notion of continuous improvement was a desire to '*be the best*' (BA 1983) or '*best in class*' (BP 1992) or to be a world-wide leader e.g. BTs aspiration "to become the most successful world-wide telecommunications group" (1990). BAA made a specific connection. "The route to a world class company is customer satisfaction, continuous improvement and committed people able to give of their best" (1995)

Culture Shift. Culture shift was seen as significant in all companies. *BT*: "We are committed to far reaching changes in our culture", [Graeme Odgers 1989]; *Bae*: "I want to create a British Aerospace culture ... we must benefit from learning from each other ... Our People Value underpins all that we do in our change programme" [Evans CEO 1996]; *Rover:* "What has really changed at Rover as a result of our total quality programme is the company culture", [Towers, CEO 1994[; *BA.* "To change the image of the company. To change the culture of the company. To increase profits" from the Putting Customer First initiative [1983]; *BP* "... we senior managers at BP want a nimble, new culture for our company. New culture - new behaviours and new motivation" [David Simon, senior executive 1990]; *BS*: Culture change through team-working [1994]; *RM:* "Since 1988 virtually all change in RM has been closely linked to the TQ approach" [Delafield 1993]. "Commitment to quality in all we do, striving to provide a service that at least meets our customers' requirements, has been central to our strategy. This has involved a transformation from being an inward, product-oriented organisation to an outward market-led and customer-focused one ... Our horizons need to expand still further, to establish new, more radical ways of looking at business strategy" [Cockburn 1993]

Rhetorical Analysis of Terminology Used in the Case Study Organisations

Invention. Ethos; Credibility of author or speaker –All of the statements listed emanate from CEOs or senior directors or are taken from company policy statements. *Pathos*; Appeal to emotion - The case study analysis threw up a number of rhetorical flourishes in each of the companies in question to support a commitment or ownership orientation. Examples include; Working with pride (Rover). Inspire lifetime relationships (Rover). We will foster pride and integrity in the organisation (BT) Every BT employee is an ambassador for the company. BA will have a corporate charisma such that everyone working for it will take pride in the company (1986 Mission statement). Our reputation depends on everyone making a contribution and becoming involved (RM). *Logos:* A range of logical arguments was drawn upon. There is a strong theme throughout the case studies about responding to competition "Times are tough. Competition is not just a bogeyman for us to frighten our people. It is very real and it is hurting" [BT Group Managing Director, 1992]. "To me the situation is close to crisis. Competition is really biting us, as competitors are hungry for BT share of the market" [MD, Development and procurement, 1992]. "To become the best airport in the world we must have the best people in the industry and equip them to compete effectively" [BAA Take Off 1996]. "All parts of the company are involved in programmes to increase productivity to ensure we are competitive" [Horton, CEO BP, 1990]. Responding to change is also a key theme. "It is not for us to inflict change, but for us to engage in a dialogue with our customers to determine their true needs and then to look at what we are doing and see if there is scope for change" [CEO RM, mid 1980s]. "We need to recognise change as a way of life as we enter the 1990s. We need to be prepared to manage actively the surprises of an uncertain, complex, volatile and rapidly changing world" [CEO BP Company Video 1990].

Disposition. Overall, the structure to achieve the aims is exhortative, sentences or clauses on many occasions prefaced by phrases such as 'we need to' or 'we must' or 'we want'. There is also a growing tendency towards hyperbole – it is not good enough to satisfy, we have to delight and thrill, be exceptional, be number one, be the best without any sense of irony. At a more technical level, where problem solving techniques are explained for example, there is frequent use of simple explanatory diagrams, to show how logical and obvious the approach is.

Style. There are an abundance of examples above of figurative language, which is the stylistic device most associated with rhetoric. "Our horizons need to expand still further" (RM); "competition is really biting us" (BT); ' "we want a nimble new culture" (BP); "the unwieldy telephonic dinosaur that came blinking into the light 10 years ago has evolved into a streamlined world class player" [BT 1994] - the list is endless. The words 'mission' and 'vision' featured throughout the study, are figures of speech, imported from a religious context.

Memory. Throughout the case study analysis, and implicit in many of the quotations above, were appeals to change based on reminding people of problems with the old, pre-privatised culture; its lack of responsiveness, its hierarchical nature, its inappropriateness to deal with new commercial demands such as competition and the need to retain customers. The ongoing swell of new programmes kept the perceived need for behavioural change in people's minds and enabled them to recall previous initiatives. Phrases were chosen to stick in the memory, many originating

from the quality gurus. Variants of 'Do it right first time' and 'zero defects' figured in seven of the case study organisation, ie. BP's 'Get it right first time and better the next' in 1996. Other interesting slogans were; 'vital few and useful many' (BT 1988); 'the 5 rights to do the right job' [BAe 1990]. Programme titles were chosen with great care: 'Putting People First' (BA); 'For all our tomorrow's' [BP 1989]; 'The New Deal programme' [Rover 1992]; 'Continuous Improvement' [BAA 1991].

Delivery. In addition, there were a series of strategies to reinforce messages by repetition through a range of media. High profile 'roadshows' run by CEOs, tapes, and videos buttressed the policy documents, line managers were trained in how to cascade the messages through their chain of command.

Conclusions

Over the period covered by the case study analysis 'continuous improvement' provided an overarching reference point for the TQPs in each of the organisations. The analytical framework outlined in figure 1 proved to be a valuable vehicle for comparing and contrasting the TQPs in the case study organisations from a continuous improvement perspective, but linked to the other TQM features incorporated. There was no significant evidence to differentiate between organisations on the basis of customer/process orientations, both of which were shared concerns. But throughout the period of study there was a focus on aspirational and inspirational vocabulary that led to a heightening of rhetorical imagery across all the organisations.

Table 1. *Summarises key terms against themes.*

Objectives: Seeking excellence through continuous improvement in a changing and competitive world Style : Aspirational and Inspirational Mode: Communication through use of rhetorical devices	
Customer Focus • Continuous service improvement, • Exceed expectations • Delight customers • Customer satisfaction • Inspire lifetime relationships • Providing value / true value • Customer is always right	**Process Focus** • Continuous process improvement, • Right 1st time Every time • Zero defects • 'get it right, check it is right', • 'get it right first and better the next time' • 'the way we want to do things'
Competitive Focus • 'best' in class • 'world' class • Increasing our profits • Benchmark • Sustainable success	**Change Focus** • Continuous Improvement • Value and Innovation • Creative thinking • New behaviour, new motivation • Change a way of life • Transformation

The language emanated from CEOs and other senior managers, supported by authoritative documents, videos and roadshows. The message was reinforced by a heavy investment in training. There is strong evidence that the case study organisations adopted an incremental 'transformational change' methodology. Steps (Nadler 1983, Kotter 1995) include establishing a sense of urgency of the need for change by examining market and competitive realities; creating a vision to help direct the change effort; communicating the vision throughout the organisation using every

vehicle possible; consolidating improvements and producing even more change. To persuade others of their position top management drew upon a range of rhetorical devices through a variety of communication modes.
There was abundant evidence of TQM rhetorical language being imported from the US and being added to. Did it get in the way of substance? The survey that accompanied this study indicated that 75% of those sampled were satisfied with the outcomes of the TQP initiatives. On the other hand, others complained of initiative overload, and two of the CEOs were dismissed over the period as they lost the support of their management team and staff.

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An Analysis of Factors Associated With Research Productivity of Human Resource Development Faculty

Heather A. Williams
Louisiana State University

James E. Bartlett II
University of Illinois

Joe W. Kotrlik
Louisiana State University

Chadwick Higgins
Idaho State University

This study describes the research productivity of HRD faculty, their perceptions of the organizational culture in their department to support research productivity, self-assessment of their research competency and anxiety. In general, little organizational culture and support for research exists in the institutions where the HRD faculty work. A regression analysis revealed that five variables explained 56% of the variance in research productivity: teaching, research, service, and administrative allocation, and the amount of graduate assistant hours.

Keywords: Faculty Research Productivity, HRD Research Productivity, HRD Research

With the astounding growth of the HRD discipline over the past 20 years, and therefore of HRD programs throughout colleges and universities, some attention must be paid to the faculty members who are instructing those who will further develop the discipline of HRD. One such method of the development of a discipline is through the research produced by the faculty members within a discipline.

Research on research produced by HRD faculty is minimal. Williams (2000) referenced the lack of research in this arena that was in accordance with findings of Podsakoff & Dalton (1987) in closely related fields. Although there is a lack of research on HRD research, individuals within the HRD discipline have recognized the importance of research within their field by both producing a handbook on research to promote the link between research and practice, and by committing to increase publication efforts.

Research within the HRD discipline is also important as a conduit of thoughts and progress toward an understanding of phenomena within the discipline. In addition, research, along with teaching and service, is a required facet of all disciplines including HRD within colleges and universities. Promotion and tenure are commonly based on the quality and amount of publications produced. In addition, program quality is commonly judged by the productivity of is faculty members (DeMeuse, 1987).

Also, in higher education, faculty with a successful publishing record and expertise in research are often admired by other faculty and students as being on the cutting edge of their field and are regarded as knowledgeable about most issues in their field. McKeachie (1994) stated that research could provide individuals with a better background to be successful teachers. It can be said that these highly productive faculty members are seen as more powerful educators and often serve as a frame of reference for junior faculty members or others who are developing their own research agenda (Levine, 1997).

Due to the value and importance of research within HRD, it is necessary to determine the factors that are associated with HRD faculty research productivity. That is, what factors are related to increased research productivity?

Theoretical/Conceptual Base

Research productivity and publications increased across academia throughout the 1990s (Sax, Astin, Korn, & Gilmartin, 1999). Specifically, within the HRD discipline, research publications have increased as evidenced by the

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increased number of journals and conference proceeding dedicated to the HRD discipline as well as the increased numbers of HRD academics publishing across HRD into related disciplines. However, even with this increase in publications, the number of such on the research itself – whether methodologies utilized or quantitative vs. qualitative studies or the needs of HRD – is quite limited. Throughout an extensive literature search, no publications were located specifically identifying factors associated with increased research publications and/or productivity within the HRD discipline. Due to the significant lack of study in this area, the factors chosen within this research effort to be investigated are based on research published on faculty research productivity in closely related fields of adult education, business education, agricultural education, and industrial/organizational psychology; therefore, these factors are purely exploratory in nature.

Several variables have been reported to relate to research productivity. Key variables which occur throughout related literature include personal variables (gender, age, confidence in research ability), personal variables associated with position (time allocation, rank, years of experience, salary, size of school), involvement with graduate student research (number of doctoral committees chaired, actively seeking research opportunities), and perceived institutional support (percent of graduate students as research assistants, increased salary, decreased teaching load, mobility, recognition).

Personal variables. Research provides mixed results concerning gender and research productivity. Liddle, Westergren, and Duke (1997) found no differences between gender types for research productivity, while Osadebe (1996) and Bailey (1992) reported a higher level of research productivity by male faculty members. Kahn (1997) and Vasil (1991) reported that males have higher self-efficacy perceptions towards research, and Vasil (1991) also reported that males spend more time performing research tasks than females. Other researchers have noted that female faculty members are lagging behind experienced male faculty members in research productivity (Gmlech, Wilke, & Lovrich, 1984; Smith, Anderson, & Lovrich, 1995; Sax et al., 1999). Blackburn, Bieber, Lawrence, & Trautvetter (1991) stated that the relationship between gender and research productivity had been addressed in many studies and that little if any, and sometimes contradictory, correlations have been found.

A second variable that is often associated with conflicting results is age. Bland and Berquist (1997) observed that the average productivity of faculty seems to drop with age, however, many senior faculty members remain quite active in research activities and their products are comparable to those of younger faculty members. They also reported that there is no significant evidence that age determines a drop in productivity, but increased workloads and shifting emphasis is to blame. Gorman and Scruggs (1984) reported that age was related to research productivity. While, Greer (1997) reported that active researchers are younger. Blackburn et al. (1991) stated that the relationship between age and research productivity had been addressed in many studies and that little if any, and sometimes contradictory, correlations have been found.

Attitude towards research has been shown to relate to research productivity. Faculty members' confidence in their research abilities is related to faculty research productivity. Schaupp (1994) reported that women with higher expectations predicted higher research productivity. Bean's (1982) model of faculty research productivity included the perceived level of legitimacy in one's research as an explanatory factor. Increases in ability and self-efficacy were also related to increased research productivity in studies conducted by Vasil (1992, 1996). Jones (1993) reported that individuals who perceived their research as a value were higher producers of research.

Variables Associated with the Organization. Numerous studies have suggested that how a faculty member spends his/her time may relate to productivity (Cohen & Gutek, 1991; Gmlech, et al., 1986; Vasil, 1992). This variable was investigated by Liddle et al. (1997) showing that a correlation between time spent in research, time spent advising, and total hours worked with productivity.

Bailey (1992) found that rank is a significant predictor of research productivity. Dundar and Lewis (1998) found that departments with higher ranked faculty had higher research productivity. Vasil reported that rank is a significant predictor of research productivity (1992).

Gorman and Scruggs (1984) and Vasil (1992) found that the number of years of professional employment was related to faculty productivity. Pfeffer and Langton (1993) reported that total years in the profession had a major impact on total research, but an insignificant effect on recent research productivity. Again, Blackburn et al. (1991) stated that the relationship between educational experience and research productivity had been addressed in many studies and that little if any, and sometimes contradictory, correlations have been found.

Several studies reported the relationship between research productivity and salary (Jacobsen, 1992; Pfeffer & Langton, 1993; Rebne, 1989; Tornquist & Kallsen, 1992). Since salary often reflects research productivity levels, this was expected. Paying attractive salaries in return for performance may serve as an incentive for higher productivity from faculty members. Higher salaries may also attract productive faculty while at the same time minimizing the possibility of losing active faculty to other institutions (Pfeffer & Langton, 1993).

Another factor related to faculty research productivity is the size of the institution in which the faculty member works. Behymer (1974) studied research productivity of faculty in four-year colleges and major research universities and reported that faculty in major research institutions publish more than faculty at smaller four-year colleges. This was similar to the findings by Bailey (1992) in which found a research productivity increases from Liberal Arts II Colleges through Research I Universities. Dundar and Lewis (1998), Gorman and Scruggs (1984), and Vasil (1992) also reported that institutional size was related to research productivity. However, Blackburn Bieber, Lawrence and Trautvetter (1991) reported that the characteristics of the employing institution were not related to research productivity.

Involvement with Graduate Student Research. In the area of terminal degree training, one key variable is the involvement of faculty with graduate student research. Kahan (1997) found that individuals in doctoral programs had higher research self-efficacy and self-efficacy was related to higher research productivity. This also supported by Daly (1995) that the practice setting and doctoral education is related to higher research productivity. The research-training environment does not only benefit the students. This is supported by Dundar and Lewis (1998) when they reported that high ratios of graduate students to faculty also correlates with productivity, and the percentage of graduate students that were hired as research assistants correlated highly with research production.

More directly, Kelly and Warmbrod (1986) found that the number of doctoral committees chaired successfully resulted in higher faculty research productivity. Gorman and Scruggs (1984) also reported that participation in graduate student research was related to faculty research productivity. The participation in graduate research and attitude of graduate students when exiting a doctoral program has also been shown to relate to research productivity. Kezmarsky (1989) reported that a favorable attitude towards research upon exiting a doctoral program and not research skills is positively related to research productivity. In a more specific study of vocational education faculty, Kelly (1982) found that actively seeking research opportunities during graduate school was identified with high producers of research.

Perceived institutional support. Kelly and Warmbrod (1986) stated that "Perceived institutional and departmental support for research are seen as the most important enablers to research productivity" (p. 31). Dundar and Lewis (1998) found that the percentage of graduate students hired as research assistants correlated highly with research production. Only one study could be found (Dundar and Lewis, 1998) that addressed faculty size. They reported that programs with smaller numbers of faculty cannot compete in the area of research productivity with larger universities.

Institutional support provided in the form of extrinsic rewards (money, reduced teaching load, tenure, mobility, recognition and promotion) was investigated by Butler and Cantrell (1989). Their study reported that depending on tenure status, various extrinsic rewards were valued higher as a motivator to increase productivity. For example, for non-tenured faculty, tenure was the most desirable reward, versus for tenured faculty, money and reduced teaching load were the most desirable rewards. This research may be indicative of variables which when present in organizations are viewed as that organization's support of increased productivity, and therefore, factors associated with productivity.

This study uses publication in refereed research journals as a surrogate for research productivity. This approach is supported by the literature. Radhakrishna and Jackson (1993) reported that publishing in refereed journals was ranked as the most important factor when agricultural and extension education department heads were asked to rank the importance of 13 factors in the evaluation of faculty. In a related study, Radhakrishna, Yoder and Scanlon (1994) concluded "Publications (refereed articles in journals and paper presentations in conferences) are considered to be a very important component of faculty productivity" (p. 17). This finding is supported by a comment made by William J. Cooper, former Dean of the [university name] Graduate School. Dean Cooper stated that "The only magic number is zero; if you haven't published in refereed journals, then publications in research conference proceedings, books and other publications are meaningless." (Personal Communication, August 1990). In Kelly and Warmbrod's study (1986), most of the variance (84.1%) in their research productivity score was explained by publications in refereed journals, with the remaining variance explained by seven other variables. The decision to use refereed journal articles as a surrogate for research productivity was based on the studies cited here.

Purpose and Objectives

This study sought to establish the factors that explain research productivity of HRD educators who serve as the faculty in colleges and universities. In this study, publications in refereed journals were used as a surrogate for research productivity. Specifically, the objectives of this study were to:

1. Describe selected demographic characteristics of the HRD faculty in the study.
2. Describe the research productivity of HRD faculty members.

3. Describe HRD faculty members' perceptions of the organizational culture that exists in their department to support research productivity.
4. Describe HRD faculty members' self-assessment of their research confidence.
5. Describe HRD faculty members' self-assessment of their research anxiety.
6. Determine if selected variables explain a significant proportion of the variance in the research productivity of HRD faculty.

Research Methods and Procedures

The population for this study included all full-time, professorial rank faculty employed by colleges and universities in the United States that are Academy of Human Resource Development (AHRD) members. The frame for the study was from the AHRD membership list. Using Cochran's (1977) sample size formula and adjusting for a 50% return rate, a random sample of 264 faculty members was selected.

Instrumentation

The scales and items used in the instrument were selected after a review of the literature and grounded in the theoretical base of the study. The face and content validity of the instrument was evaluated by an expert panel of university faculty and doctoral level graduate students in human resource education. The instrument was pilot tested with 20 university faculty members. Changes recommended by the validation panel, when appropriate, and those identified as needed during the pilot test, were incorporated into the instrument. These changes occurred in the wording of items, the design of scales, and in the instructions for completing the instrument. Internal consistency coefficients for the scales in the instrument were calculated using Cronbach's *alpha* and were as follows: organizational culture/support for research scale - a =.88, faculty self-assessment of research confidence - a= .88, and faculty self-assessment of research anxiety - a =.79.

Data Collection

The responses were collected using two mailings and a systematic follow-up of a random sample of non-respondents. Each mailing consisted of a questionnaire, cover letter, and stamped addressed return envelope. A response rate of 24.2% (64 out of 264) was attained after completion of the two mailings and the telephone follow-up.

Data Analyses

The data were analyzed using descriptive statistics for objectives one through five. Backward multiple regression analysis was used for objective six. The alpha level was set á priori at .05. To determine if the sample was representative of the population and to control for non-response error, the scale means for the three primary scales and the primary variable of measure research productivity were considered to be the primary variables in the study and the scale means were compared by response mode (mail versus phone follow-up) as recommended by Borg (1987) and Miller and Smith (1983). There were no statistically significant differences between the means by response mode for the three primary scales in the instrument: Organizational Culture/Support for Research Scale - t=.54, p=.59, df=62, Faculty Self-Assessment of Research Confidence Scale - t=.73, p=.47, df=62, Faculty Self-Assessment of Research Anxiety – t=1.86, p =.07, df=62. In addition, there were no statistically significant difference between the means by response mode for the number of single (t=1.83, p=.07, df=62), coauthored lead (t=.18, p=.86, df=62), and coauthored not lead (t=.73, p=.47, df=62). It was concluded that no differences existed by response mode, and the data were representative of the population. The mail and phone follow-up responses were combined for further analysis.

Findings

The following sections review this study's findings.

Research Objective 1: Demographic Characteristics of Faculty

This research objective sought to describe selected demographic characteristics of the faculty in the study. Most of the HRD education faculty was male (35 or 54.7%). The mean age of those reporting was 51.16 years (SD=9.37). The mean salary of those who responded to this question (n = 48), with adjusting for nine-month contract, was $59,380 (SD= $24,050), with most holding a 9-month contract (41 or 64.1%). Of those responding, 20.3% (n=13)

were full professors, 39.1% (n=25) were associate professors, 35.9% (n=23) were assistant professors, and 3.1% (n=2) were instructors.

The participants reported their universities allocated an average of 47.9% of their time for teaching, 25.7% of their time for conducting research, 14.6% of their time for service duties, and 11.0% amount of their time for administrative duties. Many (n=47, 73.4%) had earned the doctorate. The number of doctoral students advised to completion in the past five years ranged from 0 to 50 with an average of 6.7 completions (SD=12.4), while the number of masters students advised to completion in the last five years ranged from 0 to 55 with an average of 7.8 students advised to completion (SD=13.3).

Research Objective 2: Faculty Research Productivity

In this study, articles published in refereed journals in the past five years were used as a surrogate for research productivity. Those surveyed reported that, in the past five years, they had published an average of 3.17 (SD=5.60) refereed journal articles for which they were the sole author, an average of 2.92 (SD=5.20) co-authored refereed journal articles for which they were the lead author, and 2.22 (SD=2.79) co-authored refereed journal articles for which they were not the lead author. The range of publication was from 0 to 33 for single authored publications, 0 to 36 in co-authored publications being the lead author, and 0 to 17 for co-authored publications not being the lead author. Of the respondents in the last five years, 32.8% (n=21) did not publish a single authored article, 29.7% (n=19) did not publish a co-authored article being lead, and 23.4% (n=15) did not publish a co-authored article not in the lead. Overall 10.9% (n=7) of the respondents did not publish in any category over the last five years.

For the purposes of this study, total research productivity was calculated as follows: the respondent was given a credit of 1.0 for each article published for which they were the sole author, a credit of .50 for each co-authored article published for which they were the lead author, and a credit of .33 for each co-authored article published for which they were not the lead author. The mean faculty research productivity score was 5.37 (SD=7.23).

Research Objective 3: Organizational Culture.

The Organizational Culture/Support for Research (OCSR) Scale contained 20 items that assessed the faculty members' perceptions of the organizational culture and support for research that existed in their department. Responses were recorded on a five point Likert scale that ranged from 1=Strongly Disagree to 5=Strongly Agree. The scale grand mean was 2.62 (SD=.66).

Research Objective 4: Self-Assessment of Research Confidence.

The fourth research objective sought to describe the faculty members' self-assessment of their research confidence as measured by the Faculty Self-Assessment of Research Confidence Scale that consisted of 7 items. The overall mean for the scale was 3.90 (SD=.81).

Research Objective 5: Self-Assessment of Research Anxiety

The fifth research objective sought to describe the faculty members' self-assessment of their research anxiety as measured by the Faculty Self-Assessment of Research Anxiety Scale that consisted of 9 items. The overall mean for the scale was 2.41 (SD=.66).

Research Objective 6: Explanation of Variance in Research Productivity by Selected Variables.

The last research objective sought to determine if selected variables explain a significant proportion of the variance in research productivity. A backward multiple regression procedure was used to examine the amount of variance in research productivity explained by selected variables. The procedure revealed that five variables within a significant (p=.018) model to explain 56% of the variance found in research productivity (R^2=.564). These variables included teaching percentage (p=.002), research percentage (p=.002), service percentage (p=.002), administrative percentage (p=.002), and hours of graduate assistant support per week (p=.009). The variables that did not explain a significant proportion of the variance were number of masters students advised to completion, work hours, age, gender, rank, adjusted salary, organizational culture/support for research scale mean, self-assessment of research confidence scale mean, self-assessment of research anxiety scale mean, number of doctoral students advised to completion, total years in a tenure-track position, teaching at a land grant university, hours of undergraduate support per week, and research and publishing in terminal degree program.

Conclusions

With the majority of HRD faculty publishing articles – whether single or co-authored – over the past five years, and with only a minimal number of faculty not publishing at all, production of research is an area which HRD faculty are making a concerted effort to develop. The mean research productivity score also demonstrates the value of research production to HRD faculty. HRD faculty's perception of organizational culture/support for research is however not supportive of increased research productivity. This leads to the recommendation that some intrinsic reward system may be influencing the HRD faculty to produce research.

The HRD faculty members are somewhat confident in their ability to conduct research with the faculty being most confident in determining a research methodology. Along with confidence, HRD faculty demonstrated they are only a little anxious when producing research and have the least difficulty in reviewing articles for refereed research journals. This may further support the level of research productivity of HRD faculty demonstrated within this research effort.

In attempting to explain HRD faculty research productivity, the division of time of an HRD faculty member's duties (teaching, research, service and administrative) and the number of graduate assistant hours of support per week are driving factors for HRD research productivity within this study. Due to the lack of previous research on HRD faculty, comparisons with other studies cannot be made, and therefore, it is recommended that further research be conducted to determine the validity of these results. However, the factors presented here as the most contributory to research productivity are logical in nature, and the further investigation of these factors demonstrated that as one increases duties across each of these areas, their research productivity decreases. These factors could potentially be correlated with other factors such as total work hours or family situation to provide a clearer picture of the results.

Implications on HRD Research

Overall, this research study provides a basis for HRD university departments to review the perceptions of HRD faculty members concerning their organizational culture and support, and to consider the allocation of a professor's time when desiring certain research productivity levels from such individuals. This study also demonstrates the apparent dedication to the production of research with the HRD discipline that is most beneficial as the discipline continues to develop and strive to define itself more clearly. Lastly, this study strives to create a mental model of the relevance in conducting research on research in the HRD discipline to aid in the further development of the discipline.

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Intrinsic and Extrinsic Work Motivators: Implications for the Incoming Air Force Officer Workforce

Stephanie K. Johnson
Jason J. Davis
Christopher Rate
United States Air Force Academy

The purpose of this study is to explore the literature relating to work motivators and to find Air Force specific data on intrinsic and extrinsic work motivators. It investigates both the occupational selection hypothesis and the occupational socialization hypothesis, and relates them to retention in the Air Force. The literature and study results note that there is more research to be done with work motivators.

Key Words: Intrinsic, Extrinsic, Work motivators

To be a cutting-edge business, employers need to be cognizant of the changing nature of the workforce. Employers, like the United States Air Force, are investing in training and recruitment while realizing that a return on that investment requires an understanding of what motivates their workforce, both intrinsically and extrinsically. A strategic source of information to both employee and employer should be the intrinsic and extrinsic motivators that are deemed important by the workforce. The purpose of this research was to explore the issues surrounding intrinsic and extrinsic work motivators. Such accurate information allows for the development of a unique operating model that mirrors the existing reality and will help to benefit both the employee and the employer.

Extrinsic motivators are rewards derived from the job but external to the work itself such as income, prestige, and security. In contrast, intrinsic motivators include rewards obtained directly from work experience such as interest, challenge, responsibility, autonomy, and other similar gratifying features.

To explore these issues four enabling research questions were developed:

1. What are the expectations of incoming Air Force officers regarding both intrinsic and extrinsic work motivators?
2. How will expectations of work motivators, or value placed on specific intrinsic and extrinsic work motivators, change as Air Force officers continue throughout their career?
3. Are gender differences significant in the value placed on various intrinsic and extrinsic work motivators?
4. What are the sociodemographic variables associated with new entrants that may account for some of the intrinsic and extrinsic workplace motivators expected by incoming officers?

It was the aim of this research to begin with a small population, incoming Air Force officers, and use their preferences to help further the knowledge of intrinsic and extrinsic work motivators. It is first meaningful to understand the characteristics of the new workforce generation as it provides a foundation from which they form these work motivators.

The Air Force Newcomers

Strauss and Howe (1997) describe the incoming workforce generation (born between 1961 and 1981) as the 13th Generation. This generation, also called "Generation X," comprises a large part of the Air Force, with approximately 70 percent of the men and women being age 34 or younger. It is assumed that strategically aligning intrinsic and extrinsic work motivators for this generation should pay dividends in the form of retention and recruitment.

Socialization influences such as parents, peers, media, education, religion, technology and culture, can guide how this generation are intrinsically and extrinsically motivated in the work environment (Burley, 1994). For example, Izzi (1998) describes fast-food dinners, over-scheduling and high-tech bedrooms as common occurrences in socializing the "13th generation." Also, caring tasks such as childcare, elder care, lawn care, paying bills, buying groceries, washing cars, and home chores (among others) are being accomplished by hired help. In the work environment Tulgan (1995) suggests that Generation X was raised by both parents working loyally for one company, succeeding and then experiencing a downsizing, a restructuring or a buy-out. This mistrust of loyalty has brought in a generation of workers who value independence and an entrepreneurial spirit. Tulgan (1995) links their short attention spans to their environment of fast-paced technology and the information age. Specific to the Air Force, Omicinski (1999) highlights that the new generation of Air Force officers is more likely to come from fathers with no military experience to pass along to their sons or daughters.

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The generation of workers preparing to enter the workforce in the next few years may have little real-world experience with work issues. Furthermore, their expectations of work motivators may be contradictory (Johnson, 2001). It is suggested that a learning model be developed that will educate and further align expectations with the reality of work issues.

Formation of Work Values

The first step in designing a learning model is to find out where new workers' values lie with regards to expectations in the workplace. As Mortimer and Lorence (1979) noted over twenty years ago: "First, people choose occupations, and thus select their work experiences, on the basis of their values. At the time of entry into the labor force, the individual attempts to select a work role that will maximize rewards deemed most important . . ." (p. 1364). More recently, Johnson (2001) notes "in the context of work, work values are beliefs about the desirability of various work features and are usually defined by referencing several types of rewards derived from working" (p. 317).

The research on work values reveals two competing ideas. The first is the "occupational selection hypothesis," in which people choose their occupations based on psychological characteristics and values already in place (Mortimer & Lorence, 1979; Lindsay & Knox, 1984; Johnson, 2001). The second is based on the reinforcement hypothesis, or what Mortimer and Lorence (1979) called the "occupational socialization hypothesis" which asserts that rewards obtained on the job grow in importance over time and mold work values, whereas the absence of rewards lessens their values over time (Mortimer & Lorence, 1979; Johnson, 2001). This idea of value reinforcement through an occupation is consistent with Rokeach's (1973) theory of values, which affirms that values will change to preserve one's positive self-concept, and likewise valuing something that one does not have could diminish self-esteem (Rokeach, 1973).

Another issue to consider is that values formed in early adulthood are likely to change with work experience and age. Johnson (2001) argues that adolescent occupational aspirations exceed what is available in the labor market, making their work values reflect strong desires for work motivators that are unrealistic (Johnson, 2001, p. 316). Her longitudinal study found that the proportion of respondents rating each job feature as "very important" declined over the 13-14 year gap between testing phases. The question is whether or not you can accurately determine work values at the high school or college level that will be generalizeable to adult worker expectations. Johnson (2001) notes that as young people gain work experience, they also gain a better understanding of the labor market and what is realistically attainable.

It is also necessary to address a possible gender difference with regard to work motivators. Studies have found that women place a greater emphasis on intrinsic, altruistic, and social rewards from work, while men place more importance on the extrinsic motivators obtained from work (Johnson, 2001; Lindsay & Knox, 1984). Johnson also found that the gender gap in extrinsic values did not lessen throughout the time between testing yet both males and females attached less importance to extrinsic values over time. As times change, this gender differentiation due to socialization is decreasing. Women are beginning to close the gap regarding the value they place on extrinsic motivators while maintaining a stronger orientation towards intrinsic, altruistic, and social rewards (Johnson, 2001). In support of the reinforcement hypothesis, as young people begin to become more realistic about what rewards are available to them in the workplace, the gender difference in work values may narrow (Johnson, 2001).

Another variable is sociological changes, particularly family roles and economic standing. Johnson (2001) describes a gender model that would predict weaker effects of work motivators for women when compared to men, with women experiencing a decrease in the importance of work motivators as they enter family roles. Additionally, family roles for males solidify their breadwinner role increasing their focus on extrinsic motivators. In general, having a family and children has been positively associated with an increase of importance placed on extrinsic motivators across both genders (Johnson, 2001). Lindsay and Knox (1984) assert that social structure variables on life changes, particularly parenthood, education, origin, race, and gender, have a big impact on the formation of work values.

Economic status also plays a significant role in facilitating the formation of work values. Mortimer and Lorence (1979) note that when an individual has inadequate economic resources, income and other extrinsic motivators assume a higher priority. Comparatively, when material needs are met the salience of extrinsic motivators lessens and the worker concentrates on more intrinsic job satisfactions (Mortimer & Lorence, 1979). Furthermore, intrinsic occupational rewards increase with occupational prestige, while extrinsic rewards are highly valued at lower occupational levels (Mortimer & Lorence, 1979).

In summary, significant trends exist in the study of work values. However, numerous studies provide support for different hypotheses, or conflicting findings with regards to gender differences, the stability of work values over time, and the impact of demographic and socioeconomic conditions on work values. This study seeks to identify

what work values officer candidates consider most important, the possible gender differences across these values, and the possible incongruity between valued motivators and current motivators that may be effecting retention rates in the United States Air Force. Most importantly, the study will seek to identify whether incoming Air Force officers will value extrinsic work motivators over intrinsic work motivators, and whether there will be any gender difference in this preference.

Method

A survey was designed to provide insight into the different values placed on both intrinsic and extrinsic work motivators. The data helped analyze how cadets from the United States Air Force Academy (USAFA) and various Reserve Officer Training Corps (ROTC) programs preparing to enter active duty perceived intrinsic and extrinsic work motivators. Comparisons were made between commissioning source and gender. Furthermore, in addition to the previously presented research questions, two hypotheses were formulated:

Hypothesis 1: There will be no difference between incoming USAFA and ROTC officers in the respect that both will value extrinsic motivators more than intrinsic motivators.

Hypothesis 2: Extrinsic motivators will be rated as more important than intrinsic motivators across genders.

Sample

The sample consisted of 343 cadets entering the active duty Air Force within the next year. Specifically, the sample contained 275 USAFA cadets and 68 ROTC cadets enrolled at universities in Colorado and Wyoming. The average age was between 21 and 22 years old. The majority of the sample had mothers with some college or trade school education that worked either full or part time while the cadet had lived at home. The majority of the fathers of the sample population had a college degree. Of the ROTC population, nine were married with the majority having a spouse that had some college or trade school education that worked full-time. Of the nine married cadets, six had children.

Instrument

An existing multipart survey, The Career Issues Survey, was directly administered for this study (Covin & Brush, 1993, 1991). The instrument language was slightly modified to fit the cadet population and context. For this study, only sections two and three of the Career Issues Survey were used (questions 57-91). These two sections contained questions related to extrinsic and intrinsic motivators. The participants completed the surveys in a classroom setting with the researcher present to answer questions.

Data Analysis

To assess for "dimensionality and commonality" (Covin & Brush, 1993, p. 36) among the 34 Likert-scaled items, a factor analysis was performed, aligning the questions into two factors – intrinsic and extrinsic motivators. The factor analysis was used to generate subscores for the two dependent variables – intrinsic and extrinsic work motivators. Next, the subscales derived by the factor analysis were utilized to compare commissioning source and gender. Once the researcher established the reliability of the factors derived by the use of a reliability analysis function, a two-way Analysis of Variance (GLM Univariate) and a Multivariate ANOVA were used to test for interactions between the two independent variables (commissioning source and gender) on both Factor One (intrinsic motivators) and Factor Two (extrinsic motivators).

Factor Analysis

The first step in the data analysis was to identify what factors would be present in the data. This was accomplished using a factor analysis. Fraenkel and Wallen (1996) describe factor analysis as "a technique that allows the researcher to determine if many variables can be described by a few factors...the technique essentially involves a search for clusters of variables, all of which are correlated with each other" (p.314). A factor analysis was performed using principal component factoring and a varimax rotation using questions 57-91 of the survey and extracting all of the questions into two factors. The questions within each factor with loadings above .5 were identified and retained (see Appendix).

To ensure that the loading in each factor was actually contributing to the factor, a reliability analysis was run. By analyzing the alpha reliability coefficient, one can determine the strength of the scale. For Factor One, alpha was .84, and for Factor Two alpha was .79. In both Factors, the alpha reliability coefficient would not have improved with a removal of any one item.

A test for correlation amongst the two factors was also accomplished. The purpose was to verify whether a relationship existed between the two factors. A Pearson product-moment coefficient (r) was calculated for the two factors. Correlation coefficients for Factor One and Two were .17, revealing no significant correlation between the two factors.

Factor One.

Factor One contained questions directed at weighing the importance of intrinsic motivators to incoming Air Force officers. After analyzing the factor loadings and the descriptors present in each question, it was decided to retain questions 72, 74, 78, 79, 81, 84, 85, 88, 89, 90, and 91. Questions 63, 86, and 87 were removed because their descriptors did not fit with the other questions.

A high score on any item in the factor would indicate that the particular intrinsic motivator is a very important aspect of the workplace to the sample. There was no significance in commissioning source, gender, or the interaction for Factor One. The data demonstrates that intrinsic motivators were rated higher than extrinsic across both commissioning sources and gender (see Tables 1 and 2). The men rated the importance of intrinsic motivators .02 higher than the women. In addition, ROTC cadets rated the importance of intrinsic motivators .01 higher than USAFA cadets. Furthermore, there was no significance in the univariate ANOVA performed on Factor One (see Table 3).

Factor Two.

Factor Two consisted of questions directed at weighing the importance of extrinsic motivators to incoming Air Force Officers. After analyzing the factor loadings and the descriptors present in each question in this factor, it was decided to retain questions 57, 58, 60, 64, 66, 67, 68, and 70. Questions 71, 80, and 82 were removed because their descriptors did not fit in with the other questions.

For this sample, a high score indicated that certain extrinsic motivators are important aspects of the workplace. Factor Two had a lower mean than Factor One. The female sample's mean was .34 higher than the males on this factor, which is indicated by the significance on gender in Factor Two: $F(1,343)=6.74$, $p=.01$ (see Table 4). In addition, USAFA cadets' mean was .16 higher than ROTC's, as indicated by the significance for commissioning source: $F(1,343)=6.30$, $p=.01$. Therefore, both gender and commissioning source main effects were significant for Factor Two.

Analysis for Research Questions and Hypotheses

The research questions and hypotheses suggest that source of commission and gender will relate to intrinsic and extrinsic motivators. A two-way Multivariate Analysis of Variance (MANOVA) was used to test for main effects of the sample groups (USAFA cadets versus ROTC cadets, and men versus women) on the two factors. The MANOVA indicated there are significant main effects for both commissioning source (Wilks's lambda = .97, $F = 4.61$, $df = 2/326$, $p = .011$) and gender (Wilks's lambda = .98, $F = 3.22$, $df = 2/326$, $p = .041$). The MANOVA also indicated no significant interactions between commissioning source and gender (Wilks's lambda = .99, $F = 2.31$, $df = 2/32$, $p = .10$).

The univariate tests for the influence of commissioning source and gender were significant ($p<.05$) for the main effects of gender and commissioning source for Factor Two (extrinsic motivators). The interaction between gender and commissioning source was not significant in either Factor, nor was anything else significant in Factor One (intrinsic motivators).

T-Test

The purpose of paired-samples T-test is to compare the means of two variables for a single group. Since one of the objectives was to determine if incoming Air Force officers would value extrinsic motivators (Factor Two) more than intrinsic motivators (Factor One), a paired-samples T-test would reveal any difference. The mean for intrinsic motivators was 4.17 while the mean for extrinsic motivators was 3.69. This difference was significant on a two tailed measure, $p = .000$.

Individual Question Means

Another analysis component is individual question means. These means reveal on a smaller level what the extremes are for importance or what is really not important to the incoming officer within the confines of both extrinsic and intrinsic motivators. The questions rated the most important included: 1) is intellectually stimulating, 2) provides a feeling of accomplishment, and 3) medical benefits. These highest scores are inclusive of commissioning sources and genders.

Interpretation

The first research question asked what the expectations of incoming Air Force officers would be regarding both intrinsic and extrinsic work motivators. A descriptive analysis of means suggests the six extrinsic and intrinsic motivators rated the highest were: 1) Working Conditions (extrinsic), 2) Medical Benefits (extrinsic), 3) Allows adequate time for family and friends (intrinsic), 4) Provides job security (intrinsic), 5) Is intellectually stimulating (intrinsic), and 6) Provides a feeling of accomplishment (intrinsic). Conversely, the three questions rated lowest by the group, related to Factor Two, were 1) Childcare policies, 2) Maternity Leave Policies, and 3) Paternity Leave Policies (all extrinsic factors).

Since the majority of 20-21 years olds do not have immediate concerns regarding children, and USAFA cadets are prohibited from having children while they are cadets, it is not surprising that the group rated these three questions lowest. However, the more interesting finding lies in the higher rated questions. The general theme of the highly rated questions was one of internal satisfaction due to accomplishment and the work environment, rather than one based on extrinsic motivators such as money. Although this finding generally does not support our hypothesis, it speaks volumes for those entering the Air Force because it shows that they value the nature of their work, and not their pay. This is a positive consideration as most Air Force personnel have the potential to earn more income in the civilian sector. Therefore, these findings suggest that the Air Force is sufficiently tending to these needs. With regards to retention, it would be important to focus on the motivators, both extrinsic and intrinsic, and to try to maximize those in the Air Force officer work environment.

The second research question asked how expectations of work motivators, or value placed on specific intrinsic and extrinsic work motivators, would change as Air Force officers continue throughout their career. The data suggests that there is more importance placed on intrinsic motivators in the workplace rather than extrinsic motivators as can be explained by the difference in means and the paired-sample T-test. However, the first research question should be a good indication that it is a distinct possibility that the answer lies much deeper than a simple diagnosis. The answer may very well be that incoming officers value a distinct mix of intrinsic and extrinsic motivators based on individual socialization and environmental factors. In addition, without the use of a longitudinal study of incoming officers, both before entry and after a specified time in service, it is indeterminable how these values will change as their career progresses. However, the retention issues surrounding this question can be answered by the research. One of two things most likely happens. The first option is that incoming officers follow the "occupational selection hypothesis," in which people choose their occupations based on psychological characteristics and values already in place (Mortimer & Lorence, 1979; Lindsay & Knox, 1984; Johnson, 2001). Or they follow the "occupational socialization hypothesis" which asserts that rewards obtained on the job grow in importance over time and mold work values, whereas the absence of rewards lessens their values over time (Mortimer & Lorence, 1979; Johnson, 2001). The thought is that if they are following the "occupational selection hypothesis" then retention solutions are minimal because they are basing their job preference off of predetermined values. Therefore, if the Air Force occupation does not satisfy those values then the officer will most likely separate from the Air Force. However, if it is the case that they are following the "occupational socialization hypothesis," then it is important to find out what motivators are important to them as their career develops, and to positively reinforce those motivators for retention purposes.

The third research question sought to identify gender value differences on various intrinsic and extrinsic work motivators. The data does not support gender differences related to intrinsic motivators; the gender main effect was significant for extrinsic motivators (Factor Two). One might argue that the differences in values placed on the extrinsic motivator questions are most likely due to different gender roles and the different value systems across genders. This finding warrants further research. As of now, data suggest no significant motivators that will drastically impact retention for one gender that would not also have a positive impact on the other. The fact that male rated extrinsic motivators as slightly higher than females is in accordance with past research (Mortimer & Lorence, 1979; Lindsay & Knox, 1984; Johnson, 2001).

The fourth research question asked if there were any sociodemographic variables associated with new entrants that may account for some of the intrinsic and extrinsic workplace motivators expected to be delivered by their employer. It can be assumed from the data that cadets planning to enter the workforce are expecting some type of

assistance from their employer with issues related to work and family. An interesting demographic finding was that the majority of mothers of the cadets had worked either full or part-time while the cadet had lived at home. Additionally, all of the spouses of the ROTC cadets had jobs. This is an indicator that issues of work-family balance had been present during their formative years in which both of their parents worked.

In summary, although the study answered the research questions quite well, it rejected both of the hypotheses. Intrinsic motivators were in fact rated higher than extrinsic motivators, which is the exact opposite of the prediction. The first hypothesis predicted that there would be no difference between USAFA and ROTC incoming officers in the respect that both will value extrinsic motivators more than intrinsic motivators. Although there was no significant difference between USAFA and ROTC on their ratings of intrinsic motivators (Factor One), commissioning source was significant for extrinsic motivators (Factor Two). In addition, both groups rated intrinsic motivators higher than extrinsic motivators. The second hypothesis stated that extrinsic motivators would be rated as more important than intrinsic motivators across both genders. Again, since intrinsic motivators were rated as more important across both commissioning source and gender, this hypothesis is also rejected.

A major objective of this research has been to ascertain work motivators of incoming officers into the active Air Force. The efforts have resulted in data that can help assist with recruiting, retention and education. Additionally, the data begins to lay the foundations for future development in the area of intrinsic and extrinsic workforce desires. Toward this goal the research yielded results which indicate that incoming Air Force officers can differ in their work values. Further studies of work motivators, especially specific to Air Force officers are needed. A longitudinal study would reveal the changing nature of work motivators that would immensely help form a better learning model for the United States Air Force and other employers. Ultimately, this could increase retention and make for a more reliable and efficient workforce.

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Appendix

Factor One (intrinsic motivators) includes questions:

72. Requires originality and creativity
74. Encourages continued development of knowledge and skills
78. Gives you the responsibilities for taking risks
79. Requires working on problems of central importance to the organization
81. Provides change and variety in duties and activities

84. Permits advancement to higher levels of responsibility
85. Permits working independently
88. Is intellectually stimulating
89. Permits you to work for superiors you admire and respect
90. Permits you to develop your own methods of doing the work
91. Provides a feeling of accomplishment

Factor Two (extrinsic motivators) includes questions:

57. Level of Pay
58. Child Care Policies
60. Vacation policies
64. Working hours
66. Medical benefits
67. Maternity leave policies
68. Yearly pay increases
70. Paternity leave policies
71. Allows adequate time for family/friends
80. Provides ample leisure time off the job
81. Provides comfortable working conditions

Note: For an entire copy of the survey refer to Covin & Brush, 1993 & 1991

Table 1. *Mean Factor Scores of Male and Female Respondents*

Factor	Men (n = 255)	Women (n = 88)
Factor 1 Intrinsic Motivators	Mean = 4.17	Mean = 4.15
Factor 2 Extrinsic Motivators	Mean = 3.61	Mean = 3.95

Legend of Likert Scale: Range was 1-5 with 1: Not Important, 3: Neutral, 5:Very Important

Table 2. *Mean Factor Scores of USAFA and ROTC Respondents*

Factor	ROTC (n = 68)	USAFA (n = 275)
Factor 1 Intrinsic Motivators	Mean = 4.17	Mean = 4.16
Factor 2 Extrinsic Motivators	Mean = 3.57	Mean = 3.73

Legend of Likert Scale: Range was 1-5 with 1: Not Important, 3: Neutral, 5:Very Important

Table 3. *ANOVA for Factor One (Intrinsic Motivators)*

Source	Sum of Squares	df	Mean Square	F	Sig.
Commissioning Source (Univer2)	.04	1	.04	.155	.694
Gender	.164	1	.164	.697	.404
Univer2 * Gender	.188	1	.188	.801	.372
Error	79.291	337	.235	--	--
Total	5995.736	341	--	--	--

Note: p<. 05

Table 4. *ANOVA for Factor Two (Extrinsic Motivators)*

Source	Sum of Squares	df	Mean Square	F	Sig.
Commissioning Source (Univer2)	2.23	1	2.23	6.30	.013*
Gender	2.39	1	2.39	6.74	.010*
Univer2 * Gender	1.09	1	1.09	3.07	.081
Error	120.14	339	.354	–	–
Total	4820.42	343	–	–	–

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MBTI: A Tool to Enhance Team Learning

Brenda S. Gardner
Sharon J. Korth
Xavier University

Using teams of employees to get work done in organizations is becoming increasingly more common across the world. This article focuses on an approach to training HRD professionals to learn and model effective team behavior. It describes how the MBTI is used as a tool to enhance team learning in a graduate level HRD program. Conclusions and recommendations for HRD academic and training programs are explored.

Keywords: Teams, Learning Styles, Academic Programs

Across the world, organizations utilize teams in the workplace. From the United Kingdom, Australia, Ireland, Malaysia, and the United States, descriptions of workplace teams abound (Wellins, Byham & Dixon, 1994). While some of these teams are domestic, with all of the members from the same country, the increasingly global workplace has led to the creation of many transnational teams as well. The number of teams used in the United States has increased since the 1980s when total quality and other similar management philosophies pointed to team-based work environments as the success formula of the future (Dobyns & Crawford-Mason, 1991). When faced with the challenges of a changing workforce, global competition, technological innovations, decreases in productivity, and shifting work values, many U.S. organizations used teams as part of their newly designed work structure.

Problem Statement

HRD professionals are often responsible for the training of teams in the workplace and must understand the elements of team learning and effective team behavior. The best learning comes from personal experience, so the challenge is to provide HRD professionals with team learning experiences that they can transfer to the workplace.

Theoretical Framework

The Myers-Briggs Type Indicator has been used extensively in organizations and educational institutions and is based on the work of the Swiss psychotherapist Carl Jung (Myers, 1993; Provost & Anchors, 1987). The MBTI reflects individual preferences for energy (Extraversion and Introversion), information gathering (Sensing and Intuition), decision making (Thinking and Feeling), and lifestyle (Judging and Perceiving). Each of these four dimensions is measured on a scale; sixteen unique personality types result from the combination of the four MBTI preference scales.

One common use of the MBTI is with learning style research. For example, extraversion has been found to be associated with preferences for working in a group, whereas introversion is related to working individually. Sensing is associated with practical interests, while intuition is related to tasks that call for imagination. Research has shown that students high in the thinking dimension prefer objective material to study, while those high in the feeling dimension learn through personal relationships. Finally, the judging component relates to formalized instruction, whereas the perceiving component corresponds to informal problem solving (Lawrence, 1984).

Lynch & Sellers (1996) developed descriptions of four college/learning environments based on a quadrant combination of MBTI attitude and perception preferences which were most applicable to learning (1996) (See Figure 1). Lawrence (1994), and Lynch and Sellers use combinations of the first two dimensions of the MBTI to describe different types of classrooms.

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Figure 1. Learning Style Preferences and Training

ES Training Activities **Extravert – Sensing** - facts, information - organized schedule - practical hands-on experience - field trips - on-the-job training - working in groups - thinking aloud - group reports	**IS Training Activities** **Introvert - Sensing** - practical, realistic - organized with steady pace - step-by-step sequence, attention to detail - clear expectation from trainer - allow time to think before working in groups - demonstrations - computer assisted instruction - films, videos, audio-visual aids
EN Training Activities **Extravert – Intuitive** - variety - group work on problem-solving tasks - discuss situations to spark imagination - freedom to choose alternatives - deadlines and strict time schedule de-emphasized	**IN Training Activities** **Introvert - Intuitive** - serious reading - tutorials, independent study - autonomy in setting own goals and plan - allow time to think through topic - explore special interest topics in depth - move at the rate preferred by the students - allow for individual work

The MBTI has also been used extensively to enhance teamwork. According to Hirsh, the MBTI specifically aids team members by:

- reducing unproductive work
- identifying areas of strength and possible area of weakness for the team
- clarifying team behavior
- helping to match specific task assignments with team members according to their MBTI preferences
- supplying a framework in which team members can understand and better handle conflict
- helping individuals understand how different perspectives and methods can lead to effective problem solving
- maximizing a team's diversity in order to reach more useful and insightful conclusions. (Hirsh, 1992, p. 7).

Premise and Research Question

This research is based upon the premise that (a) teams are common in today's workplace; (b) HRD professionals must learn and model effective team behavior; and (c) academic and training programs must be developed that teach and model team behavior. The cycle of learning and performance starts with academic/training programs teaching team-related skills to HRD professionals, continues as HRD professionals utilize these skills on their jobs as they train others, and leads to improved team skills for employees.

The following research question served as a guide for this study: How can the MBTI be used as a tool to enhance team learning in academic settings?

Methodology

In this study, quantitative and qualitative data were collected in a course on organization behavior, offered during the first

semester of graduate study at a private US university, as part of an academic program in HRD. To determine personality and learning type preferences of HRD professionals, data were collected from a total of 241 HRD graduate students over a six-year period enrolled in this course, and were analyzed using Statistical Package for Social Sciences (SPSS) for Windows Release 6.1.

The students were all working adults, ranging in age from 21 to 56, with a mean age of 37, standard deviation of 7.98. Seventy-six percent of the group was female, and years of full-time work experience ranged from 0 to 37, with a mean of 13.2 and a standard deviation of 8.02. During the second meeting of the organization behavior class, the Myers-Briggs Type Indicator-Form G (MBTI), developed by Katharine Cook Briggs and Isabel Briggs Myers, was administered to the students by the researchers who were also the professors of the course.

In addition, qualitative data were collected through participant-observation and document review. Documents included course materials, assignments, as well as student learning journals and reflective papers. Data were analyzed by constant comparative method (Lincoln & Guba, 1985), reflecting on the meaning of what was heard and seen, and using existing literature when useful.

Results and Findings

MBTI Personality Preferences

This study found that in this HRD graduate student/practitioner group, the majority of students were Extravert, Intuitive, Feeling and Judging. This contrasts with the national US adult norms of majority preferences in Introvert, Sensing, and Thinking (Hammer & Mitchell, 1996). Preferences of other related fields are also included in Table 1, and indicate similarities with the HRD group in the judging preference (Myers & McCaulley, 1985).

Table 1. *MBTI Personality Preferences*

	HRD Graduate Students (n=241)	US Adult Norms (n=1,267)	Personnel & Labor Relations Workers (n=90)	Employment Development Specialists (n=80)	Teachers-University (n=2,282)
Extravert	61%	46%	54%	54%	46%
Introvert	39%	54%	46%	46%	54%
Sensing	43%	68%	56%	40%	36%
Intuition	57%	32%	44%	60%	64%
Thinking	49%	53%	66%	54%	53%
Feeling	51%	47%	34%	46%	47%
Judging	61%	58%	67%	61%	66%
Perceiving	39%	42%	33%	39%	34%

Use of MBTI to Design Team Training

Gathering data about personality and learning style preferences in relation to energy, information gathering, decision making, and lifestyle provided researchers with a layer of analysis useful in the design and implementation of team training in the classroom, as well as a tool that these students could use in their own teams in the classroom and back on-

the-job.

Researchers worked with students to help them understand how preferences could aid in improving their classroom groups, as well as the teams they were implementing and leading in the workplace. After reviewing and processing Jung's personality type theory and its relationship to the students' MBTI results, researchers organized students into small groups of 6-7 for group projects lasting over two semesters. Teams were organized, however, not by any grouping of specific MBTI types, but toward a mixture of gender, race, and levels and type of work experience.

Activities designed to help the students increase their self-awareness using MBTI personality preferences included, of course, the administration of the MBTI and thorough processing of its results. Researchers posed questions of the students such as: How do I prefer to gather information and make decisions? What leadership qualities do I value? How do I prefer to learn? What irritates me about my teammates? How can I contribute to the team? How do I react to conflict? How well do I listen? How do I give and receive feedback? What role do I play in a group setting? How well do I lead or follow? For example, students with Introversion-Sensing-Thinking-Judging (ISTJ) profiles are likely to be thorough, systematic, hard-working, and careful with detail. With this heightened self-knowledge, these students may better understand why they value traditional, hierarchical approaches to leadership and why they get irritated at those who do not follow through with commitments. Two project assignments specifically helped students increase their self-awareness: entries in a learning journal kept over two semesters, and a comprehensive analysis of the student's learning as a culminating project for the year.

To assist students in applying personality type theory to groups and teamwork, researchers organized experiential activities for the teams which were processed using MBTI results. For example, problem-solving activities and outdoor leadership activities all provided data that could be analyzed by the students using personality type theory. Group projects culminating in a presentation, report and group analysis were natural areas in which group process questions were asked of the students: How do we manage our meetings? How do we make decisions or solve problems? How do we manage our projects? How do we develop shared goals and create/maintain commitment to those goals? How do we create a climate that fosters trust and openness? How do we balance utilizing the strengths of our members while fostering individual personal development? For example,"time" can become an issue with teams and their management of meetings. Team members with the Thinking preference may prefer to be brief, concise and task-oriented, while those with the Feeling preference may want to take the time needed to build and maintain interpersonal relationships. Once team members understand that these differences exist and recognize the value of both perspectives, they can leverage them to enhance the effectiveness of their team meetings. Again, the experiences and analysis using personality type theory aided in the students' understanding and improving their classroom group, as well as how to better lead and implement teams back in their workplaces.

Course feedback from the students has been generally very positive. Informal comments, information provided on the written individual and group analysis papers, and formal end-of-class evaluation results indicate that the students find the MBTI a useful tool in increasing their self-awareness and enhancing their classroom and workplace group functioning. One student, in her individual analysis, explained that knowing about the different MBTI preferences helped her realize that she may have been misjudging the quiet members of her group as lacking commitment. As a result, she was able to appreciate their differences in style and help find ways to utilize their strengths. Another student reported about how he successfully used one of the experiential class activities with a group he was facilitating in the workplace.

MBTI Learning Styles Consideration for Training

The MBTI can also provide insight into learning style preferences of class participants. Because there will be a mix of styles in any group, it is important to create training that includes learning activities appealing to all preference types. Knowing the learning style preferences of the participants in a given group as well as the types of corresponding activities allows the flexibility to adapt the training to meet the specific needs of the group.

Applying these ideas to team building training implies that there will be a variety of individual and group activities, and that some portions of the training will be practical, hands-on, and structured while other portions will allow for personal exploration. The intent is to utilize an assortment of methods so as to tap into current learning strengths as well as to stretch and increase the participants' learning abilities in other dimensions. Researchers utilized discussions, psychomotor activities (including outdoor experiential exercises, if possible) and group work to appeal to the extraversion

dimension. Conversely, reading, individual work, and time for internal processing were also included to support the learning strengths of those with introversion preferences. Some parts of the instruction, for example, on project management, progressed in a step-by-step manner (extravert-sensing), while other parts involved having students find their own way in the material (introvert-intuition), such as in conducting research and writing papers. Finally, the course involved a mix of prescribed tasks, such as the development of an annotated bibliography on an HRD related topic (introvert-sensing), and discovery tasks, such as finding creative ways to solve hypothetical problems in a group (extravert-intuitive).

Conclusions and Recommendations

First, academics who design classroom training for HRD students may wish to use a tool such as the MBTI as a "lens" in which to review their instructional methods to determine balance and appropriateness for their group. The HRD graduate student sample reported in this article indicated that the least favored learning environment was Introvert-Intuitive, which was also reported in Lynch and Sellers' 1996 study. In a number of studies, however, Introvert-Intuitive is a very common personality style and learning preference for college professors (Lynch & Sellers; Murphy, 1987; Myers & McCaulley, 1985). (See Table 1). If professors "teach to type" (create a learning environment consistent with their own learning style preferences), a mismatch may occur between learners' preferences and professors' activities. Awareness of the implications that may develop in the classroom as a result of this type of situation can be a first step for reviewing the curriculum design for a course.

In contrast, the most favored learning style preference was Extravert-Intuitive for HRD graduate students. HRD professionals who are designing classroom training in the workplace for other occupations such as engineers, health care professionals, computer analysts, etc., would also do well to determine if their own preferences for learning activities might be overshadowing the learning needs of their students.

Finally, much more work must be done to study the role of the HRD professional in team learning and team/organizational effectiveness. This paper described how knowledge of the MBTI personality and learning styles can be used to design training for team members in the classroom. More research is needed to establish measures of team learning and transfer of skills back on the job.

Clearly, the study described in this paper is just a beginning. Further research is needed in each phase of the team learning/performance cycle (academic programs, team development in the workplace, team and organizational effectiveness) and to determine the connections between the phases (See Figure 2).

Figure 2. Team Learning/Performance Cycle

Contribution to the Field of HRD

This paper showed how the MBTI can be used to enhance the team learning of HRD professionals in an academic program. In the workplace, HRD professionals have the primary responsibility for developing and implementing team-

related training so that employees can develop the necessary competence. Further, they have an obligation to model effective team behaviors themselves. How do HRD professionals learn these important team skills? The team learning/performance cycle starts with academic programs increasing their HRD students' self-awareness and learning about groups and organizations. HRD professionals must take an active role in learning how to model and teach effective team behaviors so that teams are trained for success, the learning/performance cycle continues, and organizations maximize their capabilities to transform in order to meet strategic goals.

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Using Technology to Help Foster Critical Thinking and Reflection in Distance and Classroom Instruction: A Poster Presentation of the "R9" Process

David Ripley
The University of Canterbury

This poster presentation describes the development and application of the "R9" process, an original pedagogical strategy designed to increase critical thinking and reflection in domain knowledge-based courses, in both distance education and face-to-face classroom settings. Individual steps of the process are described and examples of its application are provided.

Key Words: Critical Thinking, Reflection, Pedagogy

The importance of critical thinking and reflection in education has been stressed repeatedly over the past several years, in national and international journal issues, numerous books and articles, and workshops held by various education authorities (Baron & Sternberg, 1987). Since this poster presentation is primarily about the R9 process and its use, there is no intent to provide a comprehensive review of the very broad range of critical thinking literature. However, critical thinking and reflection are discussed to the degree necessary to position the R9 process for the reader within that body of thought. It is important to note that the R9 process evolved from a desire to develop a pedagogical approach that would allow one to make critical thinking and reflection a part of the normal conduct of a domain knowledge-based course, rather than conferences, entire a desire to provide a course on critical thinking, such as that described by Mingers (2000).

Theoretical Framework

The literature on critical thinking and reflection covers a broad spectrum. Critical thinking, in particular, can be viewed from various perspectives.

1. One can take the limited perspective of a highly focused problem-solving approach of a typical total quality management (TQM) manual.
2. One can move to a broader -- but still skill-based -- approach that is more about the *how and what* of critical thinking. This would be more in keeping with the informal logic movement (Ennis, 1987; Kiersky & Caste, 1995; Quellmalz, 1987; McPeck, 1990).
3. Beyond this can be found what one might term a more socially conscious perspective. To use Alvesson's and Willmott's (1992) term, a "softer" approach (p. 432) that shows some concern for higher-order human needs.
4. One can also move toward positions that indicate the goal of critical thinking should be social emancipation. This latter position is more in keeping with the ideas of critical pedagogy and critical practice (Mezirow, 1990; Freire, 1970), and moves toward critical theory (Habermas, 1994; Foucault, 1994) and critical social science (Fay, 1987).

On such a spectrum, the position of the R9 process is relatively modest. I wanted to provide something more than the basic problem solving of a TQM manual but something less than a call for emancipation or a study of critical social science. The process is closer to the informal logic movement than to the socially conscious perspective. I would like my position to be congruent with Said's (1983) comment that "It is not practising criticism either to validate the status quo or to join up with a priestly caste of acolytes and dogmatic metaphysicians" (p. 5). I am taking Said somewhat out of context -- he was referring to literary criticism -- but the thought warrants reflection in this context. In the context of the domain knowledge-based course, I want to concentrate on fundamental questions such as those raised by Hughes (1996). Are the arguments and propositions sound in a logical sense? Do the conclusions follow from the premises? Are the premises justifiable? What are the underlying assumptions? A good working definition for critical thinking for my purpose is that of Brookfield (in Mezirow, 1987), which states, "Being a critical thinker involves more than cognitive activities such as logical reasoning or scrutinizing arguments for assertions unsupported by empirical evidence. Thinking critically involves our recognizing the assumptions underlying our beliefs and behaviours. It means we can give justifications for our ideas and actions. Most important, perhaps, it means we try to judge the rationality of these justifications" (p. xviii). In using Brookfield's definition, I use the phrase "recognising the assumptions underlying our beliefs and behaviours" in a very applied

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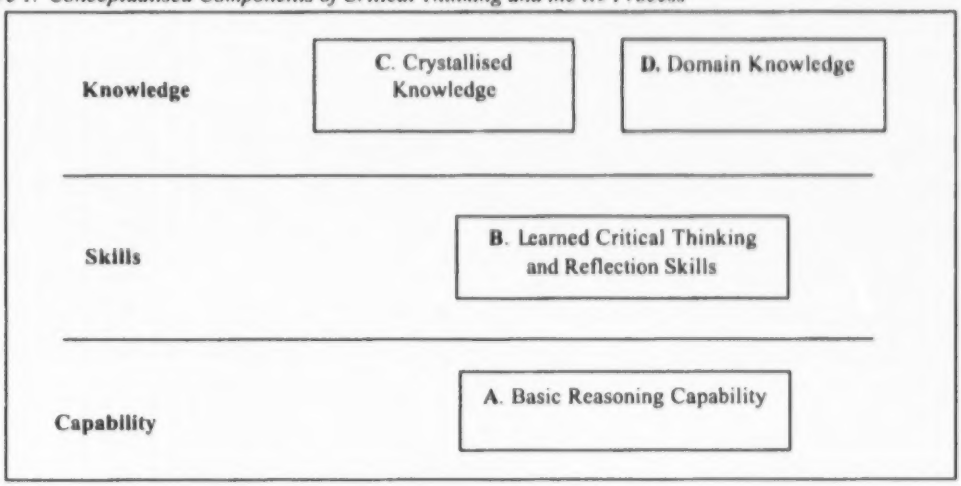
sense rather than, for example, referring to the assumptions that might underlie one's whole structure of personal values.

Moving from critical thinking to reflection, we return to Mezirow, who tells us that the three functions of reflection are to guide action, to give coherence to the unfamiliar, and to reassess the justification for what is already known. In the R9 context, the latter function is stressed. In relation to reflection, Schon (1987) quotes Alfred Kyle, a Dean of Engineering, as saying, "We know how to teach people to build ships but not how to figure out what ships to build" (p. 11). In part, my goal is that, as students learn how to build Dean Kyles's ships, they also learn (and practice) a bit about how to figure out which ships to build. I want to see students progressing toward becoming the reflective practitioners envisioned by Schon, who think and rethink some of their positions and assumptions, and practice what Schon (1983) called "reflection-in-action" (p. 50).

The second positioning issue relates to whether or not critical thinking can (or should) be taught separately, as a general skill applicable across domains of knowledge as advocated by the informal logic movement (ILM) (Ennis, 1987; Paul, 1990; Siegel, 1990). McPeck (1990), contrary to the ILM, insists critical thinking can only be taught in the context of a domain of knowledge. One cannot just *think*, but has to be thinking about something; and if that *something* were a domain one knows nothing about, critical thinking would be highly unlikely, if not impossible. My position here was to take somewhat from both schools of thought although, per McPeck, we are dealing with a specific domain of knowledge. I conceptualised three components of critical thinking (as it relates to the R9 process) as shown below and in poster 1.

Figure 1. Conceptualised Components of Critical Thinking and the R9 Process



Component A, basic reasoning capability, we seem to be born with. It equates very highly with IQ (McPeck, 1990), as well as what Cattell referred to as the we might find in a 12 or 13-year old adolescent (Merriam & Caffarella, 1991). Component B, learned critical thinking skills, we are taught -- for example in critical thinking courses in university. One can find various lists of just what these skills are, and as McPeck noted, the skills may vary depending on whether the aim is to win the argument or to seek knowledge and truth. For our purposes, I am talking about such skills as Kiersky and Caste (1995) listed: identifying, analysing, and evaluating arguments; identifying fallacies; understanding inductive and deductive reasoning; and spotting implications and assumptions. For component C, crystallised knowledge, I borrowed the term *crystallised* from Cattell, since I suggest it equates to what Cattell called *crystallised intelligence*. Roughly, this is intelligence that is grounded in life experience -- including acquired problem-solving skills and what some might call wisdom. As noted by Cross (in Merriam & Caffarella, 1991), education and experience heavily influence crystallised intelligence. Finally, component D, domain knowledge, represents the course content area. For example, if the course is human resource development, we are talking about knowledge in that domain. In terms of figure 1 components, my graduate students typically have good reasoning capability (component A) and some crystallised knowledge (component C) including some degree of critical thinking ability learned through experience. They may have some knowledge of the domain (component D), but few if any have normally had critical thinking courses, per se (component B). The domain knowledge component (component D) is our primary course content. The challenge was to include a critical

thinking and reflection component, but as part of the process of teaching the domain knowledge content. My response was the R9 process.

Contribution to HRD Knowledge

The major contribution of the R9 process is to provide a method to deal with two significant issues for both distance and classroom instruction. The first is week-to-week involvement and participation. How can one get everyone *effectively* involved in the class and interacting with the other students? The second issue is matching the structure and routine of courses to student needs and expectations, while maintaining a degree of rigor appropriate for graduate courses. R9 requires participation and involvement with others. As one of my MBA students put it, "There's no place to hide". The critical thinking and reflection components require considered, rather than spontaneous positions. Simply put, the R9 process involves a sequence of 3 cycles of reading, reflecting, and responding related to the material within each teaching/learning segment. The sequence and content of the steps is further described in table 1 and poster 2.

Developing the Process

My journey to the R9 Process spanned six courses and about five years. Five of the courses were totally asynchronous on-line courses that were part of a distance master's degree program in instructional and performance technology, and one was an MBA course in human resource management that met once a week for two hours. Asynchronous courses provide for the exchange of views through a bulletin board-type posting process, but do not provide for live, real-time conversation, such as one would have in a chat room or with one of the instant messenger services, such as AOL and Microsoft provide. In the MBA course, we had that opportunity for face-to-face interaction. The journey was not all about methodology, but was also about my own learning how to be effective in a distance environment

Courses One and Two. Courses one and two were conducted on a DOS-based program called First Reader – very basic by today's standards, but adequate for our purposes. As noted, the students, mostly adults working full time, were participating in a distance master's degree program. I tried to approach the class with adult learning principles in mind. This included such things as validation of the participants' past experiences, recognition that they were self-directed learners, involvement in establishing learning objectives, and finalising course design. In addition, I tried to get students to share in class governance. Evaluations indicated frustration with what students perceived to be a lack of clarity as to what was required of them. In course two, I tightened things up by laying out the objectives in advance and taking care of major structure items, but I still tried to provide a lot of room, and let discussions go where they would. Since we were more focused, the results were somewhat better, but participation and interaction was still not at the level I believed we needed and student evaluations still indicated a desire for more structure and clarity.

Course Three. As a result of my course two experience, I made a major shift with course three by going to a high degree of structure. The class was relatively small. I came up with two major discussion questions each week and half the class were required to respond to each question. In addition, students were assigned to provide feedback to three people who had the other question. I rotated this so that over the semester, everyone provided feedback to everyone else more than once. The feedback would then sometimes lead to further discussion but from an assessment standpoint, their requirement was one response and three feedback assignments weekly. I did learn that I had to be careful with my comments. If I made a comment on a response, for example, that comment would become the *school solution* and influence the people providing feedback – in effect cutting off their critical thinking process. The quality of work was good and student evaluations indicated they really liked knowing exactly what was required of them.

Course Four. In course four we moved to Lotus Learning Space, which provided more technical options, including web access, and more functions within the course. I stayed with the approach of assigning questions and specific feedback responsibilities. This was a larger class, so I increased the number of discussion questions. In addition to responding to an assigned question, each student gave feedback to people who had responded to different questions. The only downside here was that the assignment scheduling began to get a bit complex. The scheduling becomes a little difficult when one must (1) ensure students aren't providing feedback to people who had the same question and (2) ensure that feedback assignments rotate to different people throughout the semester. I adopted a

minimalist style, with a focus on ensuring that students were going down the right path, rather than trying to dazzle them with brilliant comments. I provided individual feedback messages commenting on responses and feedback quality, feedback on their individual assignments, and would of course respond to a problem, but not in the depth some others did. I would more likely point students to where they could find an answer for themselves. Again, I was pleased with the work of the students and students' evaluations of the course were very good.

Course Five. In course five we moved from Lotus Learning Space to a customised version of Lotus Notes. This was a most interesting class. One of the things that had concerned me was that while I was getting everyone involved and working with everyone else, I wasn't getting the degree of reflection that I felt we ought to have in a graduate course. Since we didn't have the option of the small graduate seminar, I decided to add a requirement to the responses and feedback that was called the *definitive response*. After receiving feedback, the students who had a particular question (in this course there were six weekly questions, each assigned to three students) had to develop and post a final answer. Since this is a heavy workload -- three tasks within a week -- I varied the format somewhat during the semester, and breaks in the routine proved welcome. Since I wanted the definitive responses to evidence some reflection and perhaps reconsideration, I tried to introduce the idea of *critically appreciative* feedback that would help those who had answered the questions expand their thinking. We were getting some good critical thinking in the responses, but not in the feedback. The feedback tended to be rather vanilla – "I particularly liked this and that, nice job overall, keep up the good work". One of the most interesting things to come out of this course was the reaction to trying to get students to be critical in their feedback. The term *feedback* seemed to represent a very value laden concept for some students and most of this group resisted doing anything that was not seen as positive and reinforcing. Again, I was pleased with the work and 90% of the evaluations were quite high.

Course Six. Following course five, I gave more thought to the critical thinking-reflection issue and came up with the R9 process which involves three cycles of reading, reflecting, and responding (see table 1.). A major take-away from course five was the use of the term *feedback*. I dropped it and instead now use the term *critique*. I stress that the students' task, more than anything else, is to help expand the thinking of the person who prepared the response, and they can't do this by saying "good job, keep it up". Rather, they must point out what they see as flaws, point out other perspectives, and suggest alternative ideas. The process as described was used successfully in my next distance course and in course six.

Course six presented a difference challenge in three ways. First, in adapting a process developed for on-line courses to an MBA course that meets once a week for two hours. Second, in adapting to a new platform, WebCT. Finally, the class had 37 people with 10 basically permanent groups that stay together through the programme. The groups varied in size from 3 to 5, which further complicated scheduling. I dealt with this by assigning questions by groups, but still with individual initial responses. Critique responsibilities were also assigned by groups, but were still individual work. I rotated the groups for whom one's own group provided critiques. Rather than posting the definitive responses, each group provided a short presentation at the weekly class meeting. They had to point out their initial positions, what they learned from critiques, and what their final position was. They also had to mention the best critique they received. This was followed by a few minutes for questions and discussion. This was the first use of WebCT in our MBA programme. Within a few weeks I began to get student comments (both in person and via WebCT) that this was a good way of learning. Calling the task following initial responses a critique rather than feedback seemed to have the desired effect. While I occasionally had to nudge students about various aspects of their critiques, there was no resistance to the *concept* of critically reviewing responses. The class reacted favourably to the use of this process, and I perceived that considerably more real discourse and thinking was going on than in the lecture-based courses I had taught previously in the programme. A major difference was in seeing students offer *considered* positions, taken after they had done some thinking and after exposure to other perspectives, rather than just *spontaneous* positions taken and offered in the immediacy of the classroom meeting. Student ratings of the course were up from the preceding two years, which had followed a more traditional lecture and discussion format. (Note: Since course six, I have used R9 in two other face-to-face courses with excellent results -- both in terms of student ratings and my perceptions of the thinking and learning that was occurring.)

The R9 Process

The basic R9 process activities are shown in table 1 and in poster 2. The intent of the process is to provide a structure that takes students beyond just reading for retention and recall. It encourages them to think about the assignment contents (through question design), to think about and respond to others' comments, and then, in the

light of critiques and other responses, to reflect upon, rethink, and perhaps revise their response to the original issue raised by their question.

Table 1. *The Basic R9 Process Activities*

Step	Description
1	**Read** the assignment for basic understanding
2	**Reflect** on the contents as they relate to an assigned question
3	**Respond** to the question and post that response
4	**Read** the responses of others as assigned
5	**Reflect** on the responses of others
6	**Respond** to others' postings with coaching-type (critically appreciative) critiques that will expand their thinking on their question
7	**Receive** the critiques of others relating to one's own initial response
8	**Reflect** on the responses of others who had the same question and on the critiques that were received by all who had that question
9	**Revise** the response, in collaboration with others who had the question, determine the definitive response to the question, and post that response (or present, in a face-to-face class).

Using R9 in Distance Education Courses or On-Campus

It is important to explain the process clearly at the beginning, so that requirements and expectations are clear. Many students will not have used such a process before, and in particular, the idea of providing critiques to each other needs explanation. There is an advantage for the on-campus course here, since the course can be taken into the computer lab during the first meeting to practice the response and critique process with some very simple questions. It may take a few weeks for a distance education class to shake down. On the other hand, all but new distance education students will be used to similar software, and it is primarily the three *read, reflect, respond* cycles that need to be explained. Examples of how both a typical distance education week and how a typical on-campus course might be structured and scheduled are shown in poster 2.

Application Issues

The Use of Technology. Technology that effectively handles asynchronous communication in a bulletin board-type format is essential for the process, but this does not have to be particularly sophisticated. R9 has been used successfully with a graduate-level distance education course using a version of Lotus Notes software and in an on-campus situation with three different levels of courses using WebCT software

Flexibility. There is more opportunity for flexibility in the process than one might expect. For example, by opening the weekly assignment sheets early, say the preceding Friday, those who want to do most of their work on the weekend can both be contributing to the definitive response from the current week and developing their initial response for the next week.

Scheduling. If the process is structured so that during the semester, (a) students will receive critiques from everyone in the class, (b) students will work with everyone else in the class in developing definitive responses, and (c) all students will have had responsibility for coordinating collaboration on the definitive responses, then scheduling is critical.

Questions. The questions are very important in order to promote critical thinking. They should require the student to think and perhaps question what the reading has to say, do some analysis, take a position, and support it. Most students handle the initial response issues fairly well.

Critiques. Critiques tend to be another matter. It may take a few weeks to get students into the flow of *critically appreciative* critiques – trying to help other students expand their thinking and perhaps see other perspectives. The on-campus instructor has an advantage here, with the opportunity for weekly face-to-face reinforcement of the type critiques that are needed. Grading. It is important that a significant part of the course grade be a function of successful participation in the R9 process. Participation in the process needs to be important enough that students know they cannot ignore it. Whether critical thinking and reflection is occurring is at least as important, if not more important, than the specific ideas developed. Grading should not inhibit expression in the process.

Role of the Instructor. Front-end work by the instructor is of course important in all courses, but perhaps even more important when using R9. Considerable preparation of the resources that will be needed in the software platform being used is required. Once class begins, one must be constantly monitoring responses and critiques, and

it is very important to say enough that students know the instructor is there. If, for example, marks are going to be lost due to a superficial response or critique, the student should be told immediately via private message. The primary public place for the instructor to offer comments and critique is in connection with definitive responses, whether posted or presented in class. At that time, one can ensure key learning points are covered.

Strengths and Limitations of the Process

The R9 process is offered as one answer of how to increase critical thinking and reflection in teaching domain knowledge-based courses. It can be a useful tool for increasing critical thinking and reflection, and improving the quality of dialogue in both distance and face-to-face courses at the graduate level. It is to some degree a *leveller* in that it minimises the ability of particular students to dominate or others to not participate. This has been useful when integrating groups of students whose prior education has been in systems where the approach was focussed on content recall with other groups of students who have had more exposure to a more critical, questioning approach. While some students feel the workload is heavy, most seem to appreciate the course being clearly laid out and knowing exactly what they have to do. This seems to be very important to degree-seeking adults who are working full time and may have families, and whose time for study is limited.

On the other hand, there are undoubtedly subject matter areas, as well as levels of students (for example, some undergraduate levels) where this approach might not be appropriate. In addition, there will be students who want a more free wheeling approach with less structure and who may become frustrated. Also, it is somewhat time-intensive for the instructor, particularly as class size increases, and I have not yet discovered a way to adapt it for really large classes.

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Using Technology to Help Foster Critical Thinking and Reflection in Distance and Classroom Instruction:
A Poster Presentation of the "R9" Process -- Poster One Miniature

Critical Thinking Defined

"Being a critical thinker involves more than cognitive activities such as logical reasoning or scrutinizing arguments for assertions unsupported by empirical evidence. Thinking critically involves our recognizing the assumptions underlying our beliefs and behaviours. It means we can give justifications for our ideas and actions. Most important, perhaps, it means we try to judge the rationality of these justifications." (Brookfield, in Mezirow [1987], p. xviii).

Reflection

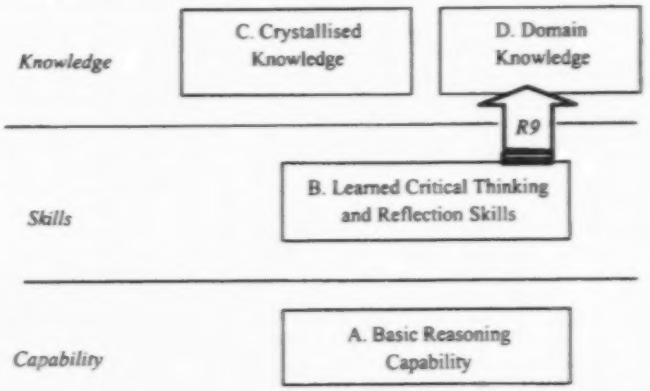
Mezirow (1987) tells us that the three functions of reflection are to guide action, to give coherence to the unfamiliar, and to reassess the justification for what is already known. Schon (1987) stresses reflective practice. I want to see students progressing toward becoming the reflective practitioners envisioned by Schon, who think and rethink some of their positions and assumptions, and practice what Schon (1983) called "reflection-in-action" (p. 50).

Perspectives on Critical Thinking

1. The limited perspective of a highly focused problem-solving approach (i.e. a TQM manual).
2. The broader -- but still skill-based -- approach that is more about the "how and what" of critical thinking. This is more in keeping with the informal logic movement (Ennis, 1987; Kiersky & Caste, 1995; Quellmalz, 1987; McPeck, 1990).

3. A more "socially conscious" perspective. To use Alvesson's and Willmott's (1992) term, a "softer" approach (p. 432) that shows some concern for higher-order human needs.
4. Those perspectives that suggest the goal of critical thinking should be social emancipation. This latter position is more in keeping with the ideas of critical pedagogy and critical practice (Mezirow, 1990; Freire, 1970), and moves toward critical theory (Habermas, 1994; Foucault, 1994) and critical social science (Fay, 1987).

Conceptualised Components of Critical Thinking and the R9 Process



Using Technology to Help Foster Critical Thinking and Reflection in Distance and Classroom Instruction:
A Poster Presentation of the "R9" Process– Poster Two Miniature

R9 Process Steps

Step	Description
1	Read the assignment for basic understanding.
2	Reflect on the contents as they relate to a question.
3	Respond to the question and post that response.
4	Read the responses of others as assigned.
5	Reflect on the responses of others (to other questions).
6	Respond to others' postings with critiques that will expand their thinking on their questions.
7	Read the critiques of others on one's own work.
8	Reflect on all critiques received on the same question.
9	Revise the response, create the "definitive response" to the question with others, and post or present.

R9 Application Issues

Technology	Must handle asynchronous communication in bulletin board-type format. Technical support for distance students.
Flexibility	May need to adjust schedule for students working full-time – should provide "break" weeks with differing requirements.
Scheduling	Rotational issues around critiques, different groups for definitive responses (DRs), and DR coordination.
Questions	Must require critical thinking, not just repeating assignment.
Critiques	Must help expand the thinking of the recipient.
Grading	Participation in the process must have significant weight.
Instructor's Role	Heavy front -end work, continuous monitoring and correction, and timing of final comments (don't jump in too early).

Typical Class Schedules Using R9

Day	Steps	Process Activity	Venue	Instructor Role
Prior to class		Set up class structure in software. On-campus, explain R9 at initial meeting and practice in computer lab.	Selected software platform. On campus, in class.	Lay out structure in platform, post all resources, prepare questions
Days 1-3	R 1-3	Read assignment, reflect on content, and post response to assigned question by evening of day 3.	Selected software platform – public posting.	Monitor, guidance as needed
Days 4-5	R 4-6	Read and reflect upon others' responses and provide critiques to others as assigned by evening of day 5.	Selected software platform – public posting.	Monitor, guidance as needed
Days 6-7	R 7-9	Read and reflect upon critiques provided by others. Develop definitive response (DR) with others who had the same question, considering all responses and critiques. Post by evening of day 7 or present in class.	Distance class group work private until DR posted. Campus groups meet and present DR in class.	Monitor and provide public feedback on each group's DR (posted or presentation), stressing key learning points.
Ongoing			Selected software platform or private meetings.	Provide private feedback on quality of students' work.

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Printed Name/Position/Title:

Organization/Address:
Academy of Human Resource Development
College of Technology
Bowling Green State University
Bowling Green, OH 43403-0301

Telephone: 419.372.9155 FAX: 419.372.8385

E-Mail Address: office@ahrd.org Date: 2-28-03

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